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Urates.

By A. B. Prescott, A. M., M. D., Professor of Organic and Applied Chemistry, University of Michigan, Ann Arbor.

THIS is the season of the annual appearance of the urates. You call upon one of your patients and you are told, as soon as the subject of the urine can be broached, that the patient's water is very bad indeed—the worst that was ever seen—completely filled with a pink (or brown or purple) sediment. It is brought in for your examination, from the cold outer room where it was set aside during the watches of the night. The nurse did not notice then, but in the morning, fortunately, it was ascertained. You are assured that—half solid as it looks—there is nothing in it beside the patient's urinary discharge. Hurrying on the way to the next patient—with movements quickened by the severe cold—you are stopped at the gate by a man whom you recognize as a hard-working farmer, and he tells you that he expects he needs some doctoring for his water, as he finds it looks fearfully bad. It fairly curdles as soon as ever it gets cold. He fears he has injured himself lifting or something, though he feels well enough, and has been some weeks in-doors, resting up after the heavy work. On coming home to your office, the young man tells you there is a sample of urine, sent in from a patient five miles out, a sample so bad that it looks as thick as cream. The bottle is there on the shelf by the stove-pipe. "Why, no," he says; "yes, that must be the same sample, but it does look clear enough now; indeed, there is no sediment at all in it," and the puzzled medical student is in a situation to receive a bantering on the solubility of the urates that he will not forget.

Scarcely any precipitate that occurs in the urine, perhaps excepting pus in severe cases of purulent inflammation of the bladder, presents such a sensational appearance as the very bulky precipitates of urates. The color of the urine, of whatever tint or depth, adheres to these sediments. Their quantity by weight is not so very large. Their normal average is only seven or eight grains in the twenty-four hours, or about four-tenths of one per thousand (0.0004) of the average quantity of the urine. Their quantity is only about one per cent. as much as the quantity of the urea, and is little more variable by disease than that of urea. Yet urea, the chief dependence for the nitrogenous excretion of the whole body, never appears in any sedimentary form; while uric acid and its salts, of slight and supplemental importance in nitrogenous excretion, are perhaps the most frequent, and least serious, of the sediments. Precipitated urates force themselves on the attention of the physician through the alarm of the patient. I do not mean that the deposit of urates is without pathological significance; but, if the urine has been standing at low temperature, the appearance of urates in sediment is often due to deviations which, it seems to me, may fairly be classed within the limits of health. And when the conditions become so far exaggerated that urates are deposited in urine at the bodily temperature, the gravity of the case rests more on the mechanical injury which urate calculi may cause in the bladder than on the pathological conditions from which such depositions result. In the economy of nature, nitrogenous excretion in the form of urates is mainly left for those lower classes of vertebrate animals that excrete solid urine, and is adopted for man only to that slight extent which the sparing solubility of urates renders compatible with a liquid renal excretion.

Free uric acid is practically insoluble in cold water, and requires 1800 parts of boiling water to dissolve it. If uric acid is set free in the urine, before discharge, there will be some extent of brown crystalline sandy deposit, and there may be concretions; but this occurs only in urine of very strongly acid reaction. Uric acid occurs in two degrees of union with alkali bases; when half saturated with bases forming acid urates, and, when fully saturated, forming neutral urates. The acid urates are more soluble than free uric acid; the neutral urates still more soluble, so that the latter are never precipitated in urine. Urine in health is of acid reaction, except during digestion, and contains the acid urates—the form of intermediate solubility. The acid urate of sodium, the most abundant of the urates, dissolves in about 1200 parts of cold water and in about one-tenth as much hot water. The acid urates of ammonium, potassium, and calcium, also, are about ten times as soluble in hot water as they are in cold water. Any proportion of urates occurring as a sediment in the urine is dissolved in the same urine at a boiling temperature, and it is rare that urate deposits occur at bodily temperature and before discharge. Some urate deposits dissolve by warming to 100° F.; other deposits require boiling water heat. Urates in calculi dissolve in boiling water.

The sediment of urates occurs only in urine of acid reaction. It is always dissolved by adding an alkali, so as to form neutral urates, but the simul-

taneous precipitation of phosphates by the alkali prevents its being seen that the precipitate of acid urates has dissolved. *Urates are distinguished from all other urinary sediments by dissolving when heated.* This sufficient test can be applied anywhere; a test-tube, and a lamp, or a dish of hot water, or a fire or a hot-air register, are enough. The bottle in which the sample is taken may be warmed, if a test-tube is not at hand. An additional test, a brilliant color reaction, may be made very easily, and is a striking experiment, though not required for identification. For this one needs only nitric acid, water of ammonia, and a shallow dish of white porcelain. Take a good quantity of the collected sediment of urates upon the dish, and evaporate it to dryness by a gentle heat, turning and tipping the dish a little to help the evaporation. Add a few drops of nitric acid and again evaporate to dryness at a very gentle heat. Now let the vapor of ammonia come upon the dried residue, or add a drop of the ammonia water, so that there shall be a very slight excess of ammonia beyond that taken to neutralize the remaining nitric acid, and when such slight excess of ammonia occurs, the residue will at once take a bright purple-red color.

The most common cause of the deposition of urates is a deficiency of water. When the solids of the urine are in strictly normal proportion, and the urine normally acid, the diminution of water, beyond certain limits, will cause the urine to deposit urates on cooling; and a still farther diminution of water will endanger the deposition of urates in urine before its discharge. No other constituent is thrown out of solution in normally acid urine by diminution of water as soon as the urates. If the urine is neutral in reaction or alkaline, as occurs during digestion in health, the urates are held in solution, and then phosphates are the first constituents to be thrown out of solution by diminution of water. Therefore, the urine formed during the digestion of food, in health, is not liable to deposit urates, although it is declared that the total uric acid is more abundant in the urine during and immediately after digestion than at other times.

Deficiency of water in the urine is, of course, more common in the summer than in the winter; but though there may be a somewhat greater proportion of water in the urine in cold weather, this factor is so much more than balanced by the precipitating power of a cold room, that sedimentary urates are more often brought to notice in the winter season.

Absolute increase of uric acid and urates, for twenty-four hours, of course, favors precipitation. Insufficient oxidation in the system, or an excess of digested food or of disintegrated tissue, beyond the respiratory powers, failing to complete the oxidation of nitrogenous excreta by formation of urea, leaves an excess of uric acid, as the token of arrested oxidation. As habits of life, a lack, and especially a sudden suspension of, outdoor exercise, close sleeping-rooms, and alcoholic drinking, diminish the oxidizing powers of respiration; and excess of food, with fair digestion, increases the material that must be oxidized. As conditions of the body, debility, heart and lung diseases, and other affections, diminish oxidizing power; and fever, inflammations, and the "critical discharges" of broken tissue substances, increase the body of material to be oxidized. In some of these cases, excess of urates is accompanied with oxalate of lime, as tokens, both, of arrested oxidation.

Again, undue acidity of the urine favors deposition of urates. The acid urates (biurates) may hold still more uric acid, as quadriurates. Even free uric acid may result by extreme acidity. Neutral urates, in solution, treated with carbonic acid gas, form acid urates; treated with ordinary mineral acids, form free uric acid. The "acid fermentation" of the urine, favored by cool temperature, often throws down urates after discharge.

Many persons would be benefited by drinking more water. Thirst, as disregarded in the hurry of active life, does not secure enough water drinking. Busy persons get in the habit of not drinking. The body needs water—due dilution of various fluids—for ease of chemico-vital changes and excretions. Free water drinking favors oxidation

Of diuretic agents, the alkali citrates, acetates, and tartrates, serve an additional purpose in correcting undue acidity in the urine—in cases of sedimentary urates. But each physician will use his own chosen means of correcting deficiency of water in the urine, or deficiency of oxidation in the system. The writer has had no other object than to sharpen up the means of recognizing sedimentary urates, and to put in order their chief relations to health and disease.

[Written for The Therapeutic Gazette.]

On Garrya Leaves.

By James G. Steele, San Francisco, Cal.

THE Coast Range of mountains of California rejoices in a *flora* peculiarly its own, differing essentially from that of the great Sierra Nevada, the more easterly mountain chain of the two. The Coast Range, as its name implies, extends along the western borders of the State near the sea-coast. It consists of a series of chains aggregating forty miles in width, bordering the State from its northern to its southern boundary. There are peaks in this range which reach from fifteen hundred to eight thousand feet above the sea level, but there is no connection in the direction of such culminating peaks.

Those portions of this range which skirt the coast in Marin, Sonoma and Mendocino counties, between the latitude of 38° and 40°, are tolerably well timbered. All the valleys in the range which are open to the coast are narrow and trend nearly east and west. Further inland, sheltered from the cool seabreezes by the outer range of mountains, are many tolerably broad and very beautiful valleys which produce the finest grain, fruit and vegetables raised on this part of the coast.

Here dwell the mighty Redwoods, the appearance of which is so majestic as to inspire the beholder with emotions of awe. Forests of oak, myrtle, pine, madrona, buckeye and alder clothe the mountain sides and foot-hills and skirt the rivers. Wild flowering plants and shrubs on the mountain sides and indigenous grasses on the plateaus and in the bottom lands of the valleys charm the eye and diversify the landscape.

In the spring of the year, the time for most of them to bloom, they cover not only the plains and foot-hills but grow in many places to the very tops

of the mountains. The forests are nearly everywhere filled with them (constituting a thick undergrowth), and even the arid plains and deserts of the interior are often adorned by their presence. The different classes and genera do not usually intermix, but grow segregated in patches, some of which cover acres and sometimes even square miles of space! The *Manzanita*, *Tyone*, *Laurel*, *Yerba Buena*, *Grindelia*, *Yerba Santa*, etc., find in the coast range a congenial home and thrive luxuriantly; but it is of another plant but lately introduced to the Eastern Medical World, whose curative properties I wish to recite: The *Garrya Plant*, called by the ranchmen and woodchoppers (who are sometimes familiar to a surprising degree with the indigenous flora of their respective sections), "*The California Fever Bush*," is found on the highest peaks and ranges, and early catches the eye of the "caballero" (horseman) from its deep green and closely-growing foliage. It presents a striking feature in the landscape, resembling at a distance a gorgeous, green velvet mantle loosely laid upon the mountain tops and aggregating here and there into folds. The following is a description (botanical) of the plant:

Garrya Fremontii — Order, *Cornaceæ*, *Garrya*—Flowers dicœcious, in axilliary aments, solitary or in threes between the decussately connate bracts, without petals. Calyx of sterile flowers 4-parted, with linear valvate segments; stamens four, with distinct filaments; disk and ovary, none. Fertile flowers, with the calyx-limb shortly 2-lobed or obsolete; disk and stamens none; ovary 1-celled, with two pendent ovules; styles 2, stigmatic on the inner side, persistent. Berry ovoid, 1-2-seeded. Seed oblong, compressed; embryo minute, with oblong cotyledons. Evergreen shrubs, with 4-angled branchlets; leaves opposite, entire, coriaceous, the short petioles connate at base; fruit blue, or purple.

G. Fremontii (Torry).—Shrub, 5 to 10 feet high, becoming glabrous; leaves ovate to oblong, not undulate, 1 1-2 to 2 1-2 inches long, acute at each end, on petioles 4 to 6 lines long; aments solitary, 2 to 3 inches long, with acute somewhat silky bracts; the fertile aments rather slender; ovaries nearly glabrous; fruit globose, 2 to 2 1-2 lines in diameter, shortly pedicellate.

The Garrya leaves have been known as an antidote to chills and fevers since the occupation of the State by the Americans. The leaves, which are the parts of the plant used in medicine, when chewed excite a profuse flow of saliva which becomes deeply tinged from the green coloring matter of the leaves. They also impart deep, almost nauseous and persistent, bitter taste, resembling the aftertaste of a good specimen of Cinchona bark. The leaves when chewed for a while also excite a sense of warmth in the mouth.

Dr. John B. Trask, of San Francisco (recently deceased), submitted preparations of the *Garrya leaves* to a course of inquiry extending over some years, and though he left no data of cases to be found, conversed repeatedly with the writer on the subject. His testimony as to the tonic, anti-intermittent and sedative properties of the plant is clear and conclusive. The form in which he was accustomed to exhibit the leaves (particularly of later years) was that of the *fluid extract*, either simple or combined with other remedies and adjuvants. The exceedingly (and to some nauseously) bitter taste of the leaves was masked by various correctives and vehicles. When swallowed the Garrya usually excites a sense of warmth in the epigastrium, which often diffuses itself over the abdomen, attended sometimes, particularly in overdoses, with gastric and intestinal irritation. It stimulates the circulation and all the functions seem to be moderately excited.

Its action on the nervous system is sometimes evinced by a sense of tension or fulness, a slight pain in the head, singing in the ears and with some temporary deafness, which effects, on the interruption of the remedy, promptly subside, leaving no disagreeable after-effects to torment the patient. Administered between the paroxysms of intermittent disorders it interrupts and checks the progress of the disease, which well known effect has caused it to be known in California as the "Fever Bush." It can also be employed with benefit in morbid conditions of the system, whatever may be the peculiar modifications in which a convalescent effect is desired. In low or typhoid forms of disease, the Garrya leaves are of great advantage in supporting the system till the malarial action ceases. It has thus been given with benefit in the latter stages of typhus fever; in scarlatina, measles, etc. As a tonic the Garrya is also advantageously given in chronic diseases connected with debility, such as scrofula, hemorrhages, dyspepsia, amenorrhœa, etc.

In the treatment of intermittents, it seems to display extraordinary powers. No case of "fever and ague," so prevalent in California (as in many newly-settled countries), has been known to resist the curative effect of the leaves. The fluid extract, given judiciously, represents the medicinal virtues of the leaves, and is preferred to the more bulky and uncertain infusion or decotion.

Diarrhœa and dysentery, which often put on the intermittent form, especially in miasmatic districts, are cured by the Garrya. Remittent fever, when preceded by depleting measures, yields promptly to this remedial agent.

Dr. Trask was accustomed to employ the fluid extract of Garrya leaves in varying forms of combination. The following formulas will serve to show somewhat his treatment and employment of the remedy:

FOR INTERMITTENT FEVER.

℞. Fluid Extract of Garrya, 5 parts.
" " " Yerba Buena, 3 parts.
" " " Licorice, 2 parts.
Simple Elixir, 6 parts.

M. Give one teaspoonful every three hours between the chills.

AS A TONIC AND SEDATIVE.

℞. Fluid Extract of Garrya, 5 parts.
" " " Grindelia Robusta, 3 parts.
Tinct. Cardamon Comp., 8 parts.
Simple Elixir, 8 parts.

M. Take two teaspoonfuls three times a day.

FOR DIARRHŒA, DYSENTERY, ETC.

℞. Fluid Extract of Garrya, 4 parts.
" " " Manzanita, 2 parts.
" " " Tyone Bark, 2 parts.
" " " Yerba Buena, 1 part.
Elixir Calisaya, 3 parts.

M. Give one teaspoonful three times a day.

The writer has had some correspondence with Dr. Q. C. Smith, of Cloverdale, Cal., on the value

of Garrya leaves as a medicinal agent, and submits the following extracts from various letters received from him, as of interest to the medical profession, and an additional testimony of the value of the leaves:

CLOVERDALE, Cal., Dec. 10, 1878.

James G. Steele, Esq.

DEAR SIR: . . . This shrub grows only near the summits of our high mountains of the coast range, as far as my observation goes, and the mountaineers tell me the same, which fact, you will note, adds to the difficulty and cost of collection.

Regarding its therapeutic powers and properties, I have some time been cognizant of the facts that the common people in the rural districts, who are familiar with its use, claim for it marvelous properties in the cure of "chills," intermittent fever, etc., and for chronic chills—such cases, for instance, as ordinary anti-malarial remedies prescribed by physicians have failed to cure in the lower great valleys of the State (as the valleys of the Sacramento, San Joaquin and American rivers), and who come up to our mountain country to recover their health. These patients are very promptly cured of their chronic chills by a few doses or draughts of a strong tea or decoction of the leaves. (Doubtless a properly-made fluid extract would exercise the same therapeutic effects.) When an overdose is taken, or a too frequent dose administered, it produces similar constitutional effects to an overdose of quinine, which, however, gradually wear off in a day or two on discontinuing the use of the remedy, leaving no permanent bad effects.

I have never heard of a case of chronic chills relapsing after a full treatment with the leaves of "Garrya Fremontii." But it will readily occur to you that the range of its usefulness should not be confined to the cases of chills, etc., as above described, as it is possessed of strong tonic and stimulant properties and useful in all cases of debility, recovery from long sickness, etc. The only fault to be found with the remedy is the complaint made by fastidious patients which can be overcome or obviated by the exhibition of the solid extract of the leaves in the form of sugar or gelatine-coated pills.

Q. C. SMITH, M. D.

CLOVERDALE, Cal., June 28, 1879.

DEAR SIR: . . . I am pleased to note your efforts for the introduction of so many of our California medicinal plants to the notice of the profession. I consider the Garrya leaves a valuable remedy, deserving of notice by the medical world, and simply invaluable as a remedy for remittent fevers, chills, etc., and other malarial ailments. Q. C. SMITH, M. D.

CLOVERDALE, Cal., Sept. 16, 1879.

Your favor of the 14th came duly to hand, and in reply would say I have learned of no additional information concerning the therapeutical properties of the Garrya leaves. My additional experience simply confirms what I have written before, that is, that it has proved very efficacious and reliable as a remedy for chronic chills, intermittent fever, etc. These cases came from the lower valleys and had resisted the ordinary treatment by physicians. Q. C. SMITH, M. D.

CLOVERDALE, Cal., Oct. 5, 1879.

DEAR SIR: . . . As I intend leaving California after a season, I am well pleased to know that your attention has been directed to introducing the Garrya leaves to the notice of the medical profession, and am well pleased above all that you have taken the remedy out of the hands of the quacks and empirics, for I am sure that it will prove of great value in the treatment of malarial diseases, and I earnestly desire the remedy to be offered to the world through honorable parties and placed before physicians in a proper and legitimate manner.

Truly yours, Q. C. SMITH, M. D.

To James G. Steele, Esq., San Francisco, Cal.

Garrya leaves have been examined by Mr. D. W. Ross, the result of whose experiments were published in the American Journal of Pharmacy for December, 1877. He extracted an alkaloid which he named "*Garryina.*" It was obtained by exhausting a small portion of the dried leaves with alcohol, the resulting tincture concentrated, an equal volume of water added, which precipitated the resinous matter. The filtrate had a dark-brown color, a very bitter taste and an acid reaction to litmus paper. The precipitated resin, when washed with water until tasteless, was of a light yellow color.

Part of the filtrate was acidulated with muriatic acid and iodo-hydrargyrate of potassium added, which gave a white precipitate. Ammonia water added in excess changed the color to a dark greenish yellow. Petroleum, benzine, or ether, agitated with the solution, did not extract any of the bitterness. Chloroform was agitated with the ammoniacal solution in six separate portions, being allowed to remain in contact each time for twenty-four hours, with frequent agitation, then separated and allowed to evaporate spontaneously. A light brown (very bitter) substance was left, having an alkaline reaction and soluble in alcohol, being slightly so in water.

It was dissolved in water acidulated with muriatic acid, digested with animal charcoal, and filtered; after being evaporated over a water-bath and set aside for a few days, a few cubical crystals were obtained, which had a bitter taste, were soluble in alcohol and water and gave the following reactions: With sulphuric acid, after a few minutes a purple color; with chromate of potassium and sulphuric acid, first a red, then a yellow and lastly a green color. Its aqueous solution was precipitated by iodo-hydrargyrate of potassium. Besides the *Garryina*, the leaves contain resin, chlorophyll, tannin and sugar. They yield, on incineration, five per cent. of ash, containing salts of potassium, sodium, calcium, iron and magnesium.

Garrya leaves impart their virtues to alcohol and water, and a hydro-alcoholic fluid extract made in the ordinary way represents the medicinal qualities of the drug. The dose of the fluid extract made so that sixteen fluid ounces represents fully sixteen troy ounces of the leaves is from ten to thirty drops, to be repeated or varied according to the disease and the effect intended.

[Written for The Therapeutic Gazette.]

New Remedies.

By W. H. Rouse, M. D., Detroit, Mich.

FOR many years proprietary medicines have flooded this country. A suborned press has enabled designing men to reap rich harvests from the sale of nostrums whose chief virtues resided in the free use of printers' ink, exorbitant pretensions, and mysticism. The claim that a remedy was obtained from an obscure tribe of negroes in Central Africa, or from some "Celebrated Medicine Man" among the Indians—parties regarded by intelligent people of not more than average scientific attainments in anything but therapeutics—is often sufficient to give a proprietary medicine popular favor and extensive sale. Not a little injury has resulted from this traffic, and physicians whose opportunities for observation in regard to these things are exceptionally good, have in their code of ethics excluded secret preparations from their materia medica. The conservative physician, therefore, is not anxious, without strong inducements, to use medicines which are not recognized by some standard authority. This should not be so. The distinction between new remedies whose properties have not been fully tested, and secret preparations of old ones, is marked. The former may be used with propriety so far as ethics are concerned; the latter only in extreme cases when suitable standard preparations are not available.

Before a new remedy can be extensively used with

propriety, its properties should be carefully tested, so that the physician may be familiar with the dose and results likely to follow its administration. This necessary information can only be obtained by much study and investigation.

There are various sources of error in regard to the actions of medicines, one or more of which may vitiate conclusions unless drawn from a large number of observations. Some of these will be mentioned:

1. *The Quality of the Medicines Used*—If the quality or strength of any given medicine varies much, no uniform result should be expected from its administration. Hence the experimenter, and even the physician when following the ordinary directions of the books, should be competent judges of the remedies used.

The American people are pre-eminently practical. With them the cheapest, easiest, quickest and best are of far more importance than dreamy theories or traditional precedents. The master mechanic furnishes his apprentice with tools and teaches him how to use them. It is not deemed essential that the boy should know where or how iron is obtained, or what chemical, mechanical or other process may be required to fashion an axe or a saw, provided he be a good judge of their qualities and possess dexterity in their use. In the medical teaching of the day, so far as therapeutics are concerned, this system is superceded by the more approved plan of giving the pupil full information in regard to the botanical, commercial, chemical and pharmaceutical history of the tools—drugs—he is about to use, information good in itself, but not that practical familiarity with their qualities and uses so important in every other department of art or science. Many physicians have entered upon their important duties quite unable to determine whether the medicines obtained from the pharmaceutist correspond with those ordered either in kind or quality. Were it not that druggists are nearer perfect than ordinary mortals, grievous accidents might occur. Whatever ill effects follow the administration of medicine, except in rare cases, is attributed to the physician. This gives the parmaceutist ample opportunity to sophisticate. An old physician, who had written prescriptions for many years, established a pharmacy in his own office. On being asked why he pursued this course said, that when medicine did not produce the effects expected he might know where the fault is.

2. *Vis Medicatrix Naturæ*—It is often quite difficult for careful observers to determine just how much of the good results should be ascribed to nature, and how much to art. A physician may he highly commended for skill, and a remedy for efficiency, even when the results are different from those expected. A man had severe pain in the gastric region. His physician administered subnitrate of bismuth and morphine, with a little water, with the intention of easing the pain until the supposed cause could be removed by catharsis. The patient had imbibed water and other fluids very freely, till the stomach could retain but little more. That little was supplied with the medicine and free emesis resulted,t hereby giving almost instant relief. Outraged nature did the work—the physician and his remedies received the credit.

3. *Expectancy*—Many people are so much influenced by faith or expectancy that remarkable results have followed the application or the administration of the most simple remedies. The reputed cures of scrofula by the royal touch, and of various ailments by the "laying on of hands" are familiar to all. This method of alleviating suffering by expectancy, especially when in the guise of religion, illustrates the adage, "The physician does more by his presence than by his pill," and accounts for some of the remarkable cures reputed to have been made by designing men for their own aggrandizement. Hope and joyful anticipation stimulate to healthful activity, while sadness and despondency depress the vital energies. In judging of the effects of remedies, therefore, due allowance should be made for the mental condition of the patient.

4. *Idiosyncrasy*—Occasionally individuals may be found upon whom certain drugs produce unusual results. Opium usually induces quiet and sleep, but with a few persons it induces opposite results. Quinine is said to occasionally produce a rash resembling that of scarlatina, but as this complication is so rare, it may be questioned if there may not be some other cause for this erythema. Several patients having similar idiosyncracies, provided they be seen in succession, would give very erroneous views in regard to the action of any given medicine which might be prescribed.

Before a medicine can be used with implicit confidence its direct and remote influence on man in health and in disease should be carefully determined. This cannot be readily done, for comparatively few people are anxious to take for the benefit of science medicines which may cause disease or death. There are, however, methods which might be pursued by students in physiological laboratories, in hospitals, by societies especially organized for the purpose, and by committees of medical societies to gain this desirable information without material injury to human beings. The most prominent of these are—

1. *Botanical or Chemical Similarity*—It might be inferred that plants of the same family and substances of the same or similar chemical composition would produce analagous effects. Valuable suggestions are thus obtained for investigating new substances but are so unreliable that other tests are needed.

2. *Action on Man in Health*—While the effects of a certain medicine on a man in health may not be identical with its effects on the same man while suffering from disease, much valuable information may be obtained by testing remedies *a la* Homœopathy. Of course every peculiar sensation, real or imaginary, the individual may experience while experimenting should not be attributed to the drug unless confirmed by a number of other persons uninfluenced by expectancy.

3. *Action on Man while Sick*—Medicines are for the sick, not for those who are well. The arbitrament of clinical observers must be the final test of all remedies. There are many sick people who will get well without medicine. In these cases the chief object of remedies is to alleviate suffering and hasten recovery. In some of these cases new remedies may be administered and their effects carefully noted. Each physician should not only be attentive to the medical and surgical wants of his patient, but also strive to render the profession still more efficient.

4. *Vivisection*—Experiments on inferior animals furnish one of our best methods of testing the actions of medicine. The medicines can be given in varying doses, their actions noted, and in due time a post-mortem should be made to ascertain what pathological changes are traceable to the remedies used. 'Tis true all remedies do not act alike on man and beasts; for belladonna may be eaten by rabbits and opium by pigeons with impunity, yet in most cases the results are similar except perhaps in degree.

Valuable experiments by vivisection may be conducted in physiological laboratories to some extent without attracting the attention of those who cannot see a dog slain for the benefit of science without raising the cry "cruelty to animals." Very few individuals in private practice, unless protected by unusual seclusion, would be anxious to gain popularity through this channel. That unreasonable sentimentality which for the sake of a few comparatively useless brutes would prevent the acquisition of information which might be the means of averting much human suffering, is unworthy of an enlightened people. Those who make these vivisections should not, of course, select aristocratic dogs, which, with curled and perfumed hair, sit at the table with their mistresses, ride in the park afternoons with maids of honor to attend their every want, sleep on downy pillows, and receive the attention of celebrated physicians when sick that their sufferings may be speedily assuaged. Common dogs will answer the purpose, and thus leave those of noble birth to become rabid, and by the death of a few of these fair ladies from hydrophobia prevent this apotheosis of the dog.

[Written for The Therapeutic Gazette.]

Sarracenia Flava.

By A. J. Roe, M. D., Taylorsville, Ill.

THE Sarracenia having proved successful in every case of chronic diarrhœa in which I have had occasion to use it, I resolved to give it a trial in old obstinate cases of gleet, leucorrhœa and nasal catarrh, in which the ordinary remedies usually fail to produce any material benefit.

In order to secure a concentrated preparation holding in solution the active principles of the drug, I exhausted the root with the strongest alcohol, to dissolve the active principles, and added to the tincture thus obtained one-third the weight of the drug of pure glycerine, and sufficient water to replace the alcohol after evaporation of the fluid to one pint, for sixteen ounces of the drug. I then evaporated the alcohol and filtered. In this manner I obtained a concentrated fluid preparation of the drug without irritating properties, and containing all the active principles.

The first case treated with the above solution was that of Mr. S., residing at Cairo, Ill. This patient had been troubled with gleet for more than four years, and had used all kinds of injections, but had received no benefit. I put one ounce of the preparation of Sarracenia in a four-ounce vial, filled it with water and directed the patient to inject a small syringe full of the mixture immediately after every act of micturition. These directions were carefully followed for one week, when the patient reported himself as cured. Shortly after this a young painter, Mr. D., applied to me saying he could get no relief for his gleet, which had been troubling him for more than six years. The same mixture, used in the same way, cured this patient in two weeks.

My third and last case, treated while at Cairo, was that of an old colored man, who had been troubled with a discharge from the penis for more than twelve years. This patient was given twenty-drop doses of the muriate tincture of iron three times a day before meals, and ordered to use the Sarracenia injection as in the other cases. He continued gradually to improve, and in one month was discharged cured.

Since treating the above cases I have used the same treatment with success in many others, both acute and chronic, and as yet have never failed to secure speedy and permanent cure. This remedy is not so prompt in gonorrhœa, but used in connection with constitutional remedies to allay irritation and chordee it will be found useful.

I have found Kava Kava to act very nicely in gonorrhœa. The remedy is pleasant to the taste and makes a beautiful milk-colored solution, combined in equal parts with water, which is the form in which I generally prescribe it, ordering the patient to take a teaspoonful in a glass of water three times a day. I consider Kava Kava as a most efficient and agreeable remedy for gonorrhœa. Given as above, with the Sarracenia used as an injection after the more acute symptoms have subsided, the combination will be found not only to cure gonorrhœa in a few days, but will also be found equally efficient in those cases characterized by the *omission* of the inflammatory stage, the disease simply commencing by a slight discharge from the penis, and gradually causing irritation at the neck of the bladder, and finally, if not cured, ending in chronic cystitis. Any physician who has ever had to deal with these most obstinate cases is fully aware that they often continue in spite of all known forms of treatment, rendering the life of the patient burdensome.

Leucorrhœa—We could not expect that any local application, alone, would cure *all* cases of leucorrhœa, and I do not claim that Sarracenia will do so. Leucorrhœa, as every well-informed physician knows, is often rather a symptom than a disease, and, therefore, until the *cause* is removed, will continue to afflict. I have found Sarracenia to be an efficient remedy in all cases that *are* curable by means of remedies locally applied, and it has proved successful in such cases when *all* other remedies have failed.

The first case of leucorrhœa in which I ever had occasion to try Sarracenia was that of Mrs. J., of Cairo, Ill. This case was one of long standing and very aggravated. The discharge was very irritating, and the patient's health was very bad. Pain in back and side was constant, and the least exertion caused palpitation of the heart. She was very low-spirited, had no appetite, and was truly an object of pity. She had undergone all kinds of treatment, but all to no purpose—nothing seemed to give any relief.

I ordered this patient to roll up a wad of cotton to the size of a walnut, tie a string around the center of it, and dip it into a mixture containing one part of the Sarracenia to two parts of pure glycerine. I then directed her to push the ball up as far as it would go, with her fingers, every night before retir-

ing, and to draw it out by means of the string in the morning. This procedure was continued for three weeks, when, all discharges having ceased, she was pronounced cured. I could give many more cases in which it produced the same prompt results, but as they are nearly all of the same description I will only refer to one other case, and then pass on to the use of this remedy in catarrh.

Mrs. M., the wife of a German farmer living three miles southwest from here, applied to me for something to relieve her of the constant fœtid discharge from the vagina, which had rendered her life a burden for more than a year, no treatment having any effect whatever upon it. I put this patient upon fifteen-drop doses of fluid extract of Berberis Aquifolium, to be taken in sherry wine three times a day before meals, and directed that she use the cotton wad as in the other case at night. This treatment resulted in a cure inside of thirty days. I may say in this connection that I consider Berberis Aquifolium one of the best general tonics ever brought to the notice of the profession; and while I have failed to get any alterative results as yet from its use, either in syphilis or scrofula, I have obtained very best results from its tonic effects in all debilitated conditions of the system.

In post nasal catarrh and ozœna, this remedy greatly lessens the discharge, but will not cure old chronic cases unless it is combined with other remedies, such as the hydrate of chloral, carbolic acid and iodine. To obtain permanent results in these cases treatment must be continued for at least three or four months.

[Written for The Therapeutic Gazette.]

Berberis Aquifolium.

With Report of Two Cases of Leucorrhœa of Long Standing Treated Therewith. By R. A. Davis, M. D., New Albany, Ind.

FIRST CASE.

MRS. S., age 32, called on me during the fall of 1878 to consult me about her condition. On examination I discovered prolapsis uteri and considerable leucorrhœal discharge, which, upon questioning her, proved to be of several years' standing, notwithstanding treatment she had undergone at the hands of several old and reliable physicians. I made a local application of carbolic acid and iodine to the inflamed uterine mucous membrane, introduced a Hodge pessary to remedy the prolapsus and dismissed her, telling her to call in a few days or let me know if she should have any trouble with the pessary. In eight or ten days she returned reporting herself improved and as having had no trouble with the pessary. I made a digital examination, found the pessary in place and told her to wear it still for another week or ten days, bidding her use the syringe frequently to keep the parts clean of the discharge which still continued. Advised her to still continue an iron tonic and alterative mixture which she had been taking since I last saw her.

She reported again in two weeks as being relieved of the constant back-ache which had distressed her, but still complained of pain in left ovarian region, and not much improvement in leucorrhœal discharge. I removed the pessary and found the uterus in normal position, but the evidences of endometritis still remaining, I again applied the carbolic acid and iodine solution, made slight change in internal treatment and told her to call in a week. She called as directed, and with expressions of gratitude said she had had no falling of the womb since she saw me, and considered herself cured of that troublesome part of her disease.

The local application of the iodine and carbolic acid in stronger solution than before was again made, and the mixture for internal use ordered to be continued. I did not see her again for five or six weeks, she having given up all hopes of ever getting well, had concluded to cease trying. I encouraged her, however, by telling her that her disease had been of such long duration that she need not expect to recover in a few weeks. I then prescribed the fluid extract of Berberis Aquifolium, having seen a report of its success in several cases similar to this. I administered it in twenty-drop doses three times a day and told her to report to me when she had used about an ounce. I saw no more of her for several months, when one morning she called and told me "I had played the mischief and got her in a terrible fix," as she had not had her menstrual discharge since she had begun using the little bottle of medicine I had given her last. Sure enough, after twelve years of sterility she had again become pregnant, and was cured of her long continued uterine troubles. Though dreading the pains and trials of labor, she said she never felt so well in her life, and had at last found relief from a difficulty which she thought would embitter the remainder of her days.

SECOND CASE.

Miss R., aged 22 years, had long suffered from uterine disease, with pains in back and sides and limbs. She consulted me in June of 1878. Along with her uterine troubles she had a constant hacking cough, and labored under the impression that she had consumption. I made a thorough examination of her case and assured her that I could relieve her. She willingly consented to treatment. Local applications were made as in first case to relieve the endometritis, and washes per vaginam recommended. She was put on general treatment as her constitution had become greatly impaired. She improved slowly and her cough left her. Several applications were made to the uterus, and the discharge greatly diminished, in fact so slight did it become that she considered herself almost well and discontinued treatment. After a few weeks she returned and said she felt as bad as ever and seemed very despondent. This time I prescribed the fluid extract of Berberis Aquifolium in twenty-drop doses, and told her to report to me as soon as the vial was used up. I did not see her again for two or three months, when she stated that she had gotten relief from the first dose she took of the medicine, and before she had taken it all she considered herself well, as there had been no discharge since.

The above cases illustrate in beautiful manner the efficacy of the new drug, Berberis Aquifolium. In the first case we have a typical case of endometritis, with cervicitis of long standing, nearly twelve years, after resisting treatment under old and approved methods and remedies, yielding to Berberis, and the sterility, doubtless dependent upon the diseased lining of the uterus, vanishing and leaving

the patient in a condition to again become a mother, after twelve years of barrenness. And in the second case, we see again in a striking manner the wonderful effects of this new drug in relieving a chronic case of endo-cervicitis, and brightening once more the life of a beautiful young lady who had become a victim to despondency from sheer despair of ever again enjoying good health.

The good effects obtained from the use of the Berberis Aquifolium have convinced me of its great value as a remedy in uterine trouble, and especially in those of a chronic character, and I cheerfully recommend it to the profession as a valuable addition to the list employed in combatting one of the most persistent and disagreeable diseases to which woman is subject.

[Written for The Therapeutic Gazette.]

Grindelia Robusta.

By A. H. Kinnear, M. D., Metamora, Ill.

I HAVE been using Grindelia Robusta in my practice for more than two years, and the success following its use justifies me in submitting the following report:

The first case that I tried it in was W. J. Cassell of our city, aged 42, who had been a great sufferer from asthma during the summer seasons for more than eight years. In July, 1877, he was attacked as usual, but with this difference that his suffering was more severe than at any previous attack. He was forced to the conclusion that he could not stand it in this climate, and that, therefore, a change must be made, and that immediately.

The necessary arrangements, preparatory to removal, were accordingly made for a start in a few days for a more genial clime. Some time previous to this my attention had been drawn to Grindelia Robusta, as a remedy in this affliction. Here was a case calculated to test its virtue. I called Mr. C.'s attention to it, and tried to persuade him to hold on a few days until a bottle could be procured and a trial given of it. He replied that he had lost faith in medicine, but if he could get a bottle of this before he started he would give it a trial, but would not delay his removal to await its arrival.

I sent to Peoria, Ill., sixteen miles distant, and got a pound bottle of Parke, Davis & Co.'s fluid extract Grindelia Robusta. Mr. C. commenced taking it in the evening, about 6 o'clock, in teaspoonful doses every four hours during the night. The next morning there was a free expectoration from the bronchial tubes, causing him to breath freer, and he expressed himself as feeling much better in every respect. He continued taking it the next day in the same prescribed doses. On retiring at 8 o'clock in the evening he requested his wife to wake him at midnight and give him another dose, but he was sleeping so quietly and breathing so easily at this hour that she concluded not to disturb him, and, therefore, she retired herself. The result was they all slept until sunrise the next morning. Mr. C. was more surprised than all the rest when he awoke to discover that the sun had beat him up. This was the first whole night's rest that he had enjoyed in eight years. He continued to take the Grindelia for three weeks or more in teaspoonful doses three to four times a day, and after that only at bedtime for a few weeks longer. He has not had an attack of asthma since taking the first dose, and I need hardly add that his journey in quest of more congenial climes has been indefinitely postponed.

From the somewhat protracted use of Grindelia Robusta as an prophylactic against further attacks, Mr. C. ascertained that the drug has also tonic properties of no mean order—properties to which other asthmatics to whom I have administered it have given testimony.

After Mr. C. had used up the first pound of the preparation, he requested me to order him two pounds more, so as to have a supply on hand of the same kind that he first had, more from fear that he might not be able to get the *genuine* article when he wanted it; his fears being, that as the market would soon be supplied with an abundance of Grindelia Robusta by various manufacturers, all claiming theirs to be genuine, from the fact that they "have their special agents in California gathering the herb at the proper time and shipping it to them direct," etc., spurious articles would be soon thrown upon the market. This prediction proved only too true; having been very generous with the supply on hand, dividing with others who were similarly afflicted, he was soon out of the medicine with the exception of about half an ounce.

Believing himself cured, he neglected to procure a further supply at that time; but, some time in the latter part of last October he felt symptoms of his asthma returning, and called on me for some Grindelia. On giving him two ounces, which was about all I had left of a pound that had been procured a short time before, he returned the medicine the next morning, declaring that some mistake had been made; that the medicine did not taste at all like Grindelia, that there must be something wrong, that it burned his mouth, throat and stomach like pepper, while that which he had first taken had a nice smooth and pleasant bitter taste. As it was my intention to visit Peoria in a few days, I invited Mr. C. to accompany me on a call at the house from whom the last sample given him had been obtained. He did so and the investigation demonstrated the fact that the preparation I had obtained was a very unsuccessful imitation of the genuine article.

I mention the latter facts in the case to illustrate the erroneous views which physicians are sometimes led to entertain of a drug on account of the preparation they employ. This is a very practical consideration and the dangers of imposition are sufficient to place the profession on their guard. The moral is: Never condemn a remedy until you are satisfied—the reputation of the manufacturer being the best and most practical guide—that the article employed is what it purports to be.

By order of the Special Drug Examiner of Boston, nearly 4,000 pounds of worthless rhubarb were condemned in the early part of October. It was ordered to be disposed of, according to the U. S. drug law, by burning or exportation. It could not be burned, so it was sent below the outer light and thrown overboard. Some barrels floated ashore, six of which were sent to Boston for sale. Fortunately, it fell into honest hands and will not be used.

Piscidia Erythrina--Jamaica Dogwood.

By James Scott, M. R. C. S., Eng., Kingston, Jamaica.

ACCORDING to my experience in Jamaica, having been nearly forty years in practice, the Piscidia Erythrina, Jamaica Dogwood, has not been used for medicinal purposes by practitioners in the island. I have never met one who seems to have given any attention to the plant, or who has ever considered the therapeutical properties or uses of any portion of it. All that has been known is, that the bark of the root is employed for taking fish in some of the larger rivers, into which a certain quantity is thrown with the certainty of stupefying or narcotizing a large number. No doubt it has been known to medical men that the Piscidia Erythrina is a powerful narcotic, from its having so acted, and by a process of reasoning have satisfied themselves that it is capable of exerting such an influence on the human subject, but it has not come to my knowledge that it has ever been employed by them.

I am not prepared to state the exact time, but, some years ago, my respected colleague, the late Doctor McGrath, and myself being then in charge of the public hospital and lunatic asylum of this city, it was thought desirable, in the treatment of a certain class of patients in the latter institution, to test the power of the Dogwood as a sedative and narcotic. This determination was come to, in consequence of the failure of morphia and other preparations of opium, as well as several known sedatives, to produce the desired effect, more particularly in those cases where there was considerable excitement or restlessness. Being early in the year when we made this resolve, it was necessary in order to gather the roots, to wait until the month of April, the period of inflorescence, the trees being then deprived of their leaves. Of the bark of these roots a tincture was prepared according to the formula recommended by Dr. W. Hamilton, of Plymouth, England, and which was found in the appendix to the "United States Dispensatory." It may be repeated here: "Macerate an ounce of the bark, in coarse powder, in four fluid ounces of rectified spirit for twenty-four hours and then filter. The dose is a fluid drachm."

The medicine in the dose suggested was prescribed for lunatics, who were in a state of excitement, and who, under the use of ordinary narcotics that were given in full and repeated doses, could obtain no sleep. When administered, the effect was most remarkable. In some cases sleep was soon produced, and on awaking the patient was comparatively tranquil and quiet, whilst in others of a rather more severe character, it was necessary at short intervals to repeat the dose, until the narcotic effect of the medicine was manifest.

I write from memory, but the good results of this powerful and valuable narcotic were invariably apparent, and most certainly after its use for a few days there was marked tranquility of the patient, and an improvement in his condition. So valuable was this medicine considered, being the only narcotic which it was discovered had, at the time, any decided effect upon lunatics, that for a series of years, and so long as Dr. McGrath and myself had charge of the lunatic asylum, fresh roots were gathered in the month of April, and the tincture was prepared in sufficient quantity to last fully for a period of twelve months, and it was uninterruptedly employed as the only narcotic, among the many in use and at command, which appeared to possess special sedative influence in allaying the excitement, and overcoming the sleeplessness of a particular class of lunatic patients.

I have had little experience in the use of the Piscidia Erythrina externally. It is not improbable that with aconite, if so used in certain forms of neuralgia, relief might be afforded. I should be unwilling to employ it in the form of decoction or infusion on any abraded surface, either where there was cutaneous eruption or ulceration. In a case of rheumatic affection of the knee and ankle joints, where the skin was unbroken in any part, the patient's extremities having been placed and kept for a short time in a strong decoction of the root, he evinced such alarming symptoms in connection with his respiration and circulation as to lead to their quick removal. Having recovered from this state, it was afterwards found that he had derived considerable benefit, so far as his rheumatic complaint was concerned, but I have since been of opinion that the Dogwood, whether in the form of tincture or decoction, should be used with much caution externally.

Lycopus Europeus.

By Henry Bradford, M. D., Omaha, Neb.

IN the list of new, and many of them valuable, remedies selected from our indigenous plants, which have been introduced to the profession within a comparatively few years, I do not notice one to which I have been led to attach a great deal of importance—*Lycopus Europeus.*

I became acquainted with its value some years since by accident. Where I formerly lived in Maine, it was a domestic cure-all, and certainly its value as a tonic was quite marked. I once returned from the South much debilitated, and with much enlargement and tenderness of the liver and spleen, a sequel of the congestive fever of South Carolina. To gratify my wife I made use of her herb tea, with some benefit. I then made a tincture of the whole herb, from the use of which I soon recovered my health. Shortly after removing to Nebraska, where remittents and intermittents were of frequent occurrence, I made trial of it with my patients, in the debility and glandular engorgements so liable to follow such fevers, and have been so well pleased with its effects that I now use it in such cases in preference to anything else.

In prescribing it and noting its effects I find it quite an efficient prophylactic against malarial fevers; at any rate, many to whom I have prescribed it have had no relapses when from their surroundings such might have been expected, and in a number of cases of families who seemed much exposed to such fevers, they have almost always escaped when they could be induced to make use of the Lycopus Europeus. The exceedingly unpalatable taste of the medicine either as tincture or acidulated solution, the only forms in which I have exhibited it, has been a serious objection to its use.

It contains, I am satisfied, one or more alkaloids having similar physiological effects to the alkaloids of the cinchonas; a decotion in acidulated water is precipitated by alkalies and the precipitates readily soluble in acids. I have never tried to isolate the active principle, and would very likely fail if I undertook it, from want of familiarity with chemical manipulations.

As I have intimated, the tincture and acid solution in water are both very unpalatable, and many patients who might be benefited refuse to take it on this account.

It has occurred to me that if some of our enterprising pharmacists were to prepare a solid extract, which, made from the precipitate before mentioned, would much resemble chinoidine both in color and consistence, or, perhaps still better, if they were to isolate the active principles, they would add a very desirable article to the materia medica, and one of especial value in malarial regions.

The plant grows sparsely in Maine but much more plentifully in the West, and could be cultivated with ease to any desirable extent. It flourishes best in quite wet situations or where the ground is shaded somewhat by trees.

The Philosophy of Yellow Fever.

By I. H. Stearns, M. D., late Health Officer of Milwaukee.

FROM what we can learn of the early history of yellow fever, it is an acclimation disease, first developed among European immigrants into the West India islands. And it now seems that in Mexico, Gautemala, Honduras, Venezuela and other States in a like latitude in the western hemisphere as well as in the Antilles, yellow fever is never absolutely extinct, but exists in a sporadic form, and under certain conditions is developed as an epidemic which may extend to an undefined limit north or south of its native habitat, depending upon its material transmission; and the extent of its ravages are largely controlled by local and climatic conditions.

One of the great questions in controversy concerning this terrible disease, is as to whether it is miasmatic or contagious. However this may be finally settled, it is absolutely certain that an epidemic of yellow fever can only exist where a number of conditions are fulfilled, which are both personal and external—and most fortunately are remediable to a prophylactic extent.

It is the intention, however, in this paper to discuss the philosophy of the disease, and not to investigate its history or etiology.

It seems unfortunate that in legitimate medical study there is no accepted comprehensive philosophy, the axioms of which cover the grounds of research; we have facts without limits, and groping among these with selections from the available, must satisfy the modern student.

To come to the point under consideration, this postulate will be admitted without question, that yellow fever is a disease of the blood. Referring to the anatomy of the blood, we find it composed of serum and corpuscles, and of course the characteristics of a single corpuscle of either of the two varieties is common to all of the same variety, and the history of one is the history of the whole mass, excepting as to time.

Now, let us take a single corpuscle from its incipience to its final elimination from the system as effete matter. The blood is formed from the food and drink taken into the stomach through the process of digestion, and entering the circulation it is carried to the lungs and there receives the "breath of life," and becomes, so to speak, a "living soul," as it is certainly instinct with life and goes the round of the circulation, returning periodically to the lungs to get renewed life-giving energies, and imparting of its substance to the various tissues. It finally becomes worn out, becomes an old individual and its usefulness having departed it dies, and of course it must be eliminated from the circulation, and it is capable of demonstration that this is done through the functions of the liver, which organ is therefore the "cemetery" of the blood corpuscles, as the kidneys are of the serum.

The effete, worn out, dead globules, become bile, but the economy of nature is so great that even this is not wasted, but goes to assist in inaugurating new blood on the same principle that excrementitious matter and vegetable mould assist in new growths.

Now, what happens in yellow fever? There is simply an epidemic among the blood corpuscles, and an inordinate number of them come to an untimely end; they die, and as thus they are a foreign substance in the blood they must be eliminated, and the liver is totally incapable of removing the remains, is overtaxed, becomes clogged up, and may break down in its functions all together. The skin charitably undertakes to assist in this work, and we have the characteristic yellowness. The kidneys also kindly offer their aid, and congestion of those organs results. The stomach volunteers its offices and there is black vomit. All the symptoms accord with this theory and point with unerring finger to this solution of the pathology of yellow fever.

From the fact of the large increase of the white corpuscles in yellow fever patients, it is quite likely that this disease attacks the red ones alone. A microscopic examination of the blood shows a large number of jagged and crenated red corpuscles. The urine reveals the presence of bile, as does also an examination of the vomit.

The universal post-mortem appearance of the liver is that of congestion and enlargement, and the kidneys show unmistakable signs of the unusual strain upon their functions while attempting to eliminate corpuscles instead of serum, for which they were created. The spleen having no like office to perform, presents no structural change unless there are malarial conditions.

The stomach suffers little pathological change, but the contents reveal what it has undertaken to do, to assist the liver in its distressed condition.

Neither the intestines, bladder, lungs, heart or brain present any characteristic lesion.

If this philosophy as to this disease is accepted, the indications for treatment become clear so far at least as to insure no violation of the first requisite in medication, which is that it shall do no harm, and it is also evident that the liver being overburdened with an extra amount of work, that organ should be relieved as far as possible, and its functions transferred to the skin, which should

be called upon through the action of Turkish and other baths and internal diaphoretics to vicariously eliminate the decaying corpuscles from the blood. *Emmenagogues* should be interdicted as doing a positive injury by breaking down the hepatic functions entirely, and precluding the possibility of recovery. Tonics and stimulants with perhaps specific medication which experience may reveal as valuable to stop the destruction of the corpuscles must be relied upon as remedial agents, together with milk and other readily assimilating varieties of liquid food to replace the destroyed blood.

The profession is earnestly enjoined to investigate this philosophy of yellow fever in the common interest of medical science and of humanity itself, even though it may result in a change of a radical character in our physiological text-books.

Abstracts and Translations.

[From advance sheets of "New Commercial Plants," by T. Christy, F. L. S., London, England.]

Menthol—Japanese Peppermint—(Mentha Species).

Peppermint Camphor. — A crystalline substance called Menthol, bearing a strong resemblance to Epsom Salts in appearance, but having a powerful odor of peppermint. It is much used in China and Japan. Sometimes this substance is sold mixed with an oil of peppermint and sometimes separately. During the last few years Menthol has been introduced into this country, but until the present year has not attracted much notice. When in China I was treated for sunstroke with this essential oil and entirely cured in two days. A short time since I had in my hands a quantity of the plant yielding this oil and these crystals, and it was examined at my request by Professor Fluckiger, of Strassburg, who, in a recent letter, says:

The Japanese peppermint herb which you kindly sent some time ago was distilled in my laboratory. I was *very much* surprised to see what a large yield of fine Menthol (peppermint camphor) it afforded. The herb must make a profitable article of importation, I fancy. Yours very sincerely,

PROF. FLUCKIGER.

STRASSBURG, Nov. 18, 1879.

In the Pharmaceutical Journal, Nov. 15, 1879, Mr. A. H. Mason, F. C. S., says:

A few years ago my brother-in-law brought with him from China some bottles of *Po-ho-yo*, which he said was used out there as a specific for headache, and as he happened to call when I was prostrate with a severe nervous headache, he insisted upon annointing my forehead with this magic liquid. I immediately experienced an agreeable burning sensation and perceived a powerful odor of peppermint, fell asleep and awoke minus the headache. When I smelt this liquid Menthol I fancied I recognized my old restorative, and I should not hesitate to apply it, of course diluted, should occasion require.

Little bottles of liquid commonly sold at extravagant prices at Vienna and Paris as *Gouttes Japonaises* or *Po-ho-yo*, consist entirely of the liquid oil. Singularly enough, the Japanese prefer the Chinese oil to their own. Mr. Mason further observes:

Whatever source they are from, *Chinese and Japanese have a more decided effect than either the English or the American oils; the latter do not relieve neuralgia to the same extent. The crystals are now used in dental cases.*—(See Practitioner, Nov., 1879, p. 448.)

Mr. Macdonald recommends it for sciatica and neuralgia, particularly for intercostal neuralgia. —(See Lancet, Vol. II., 1879, p. 449.)

A little Menthol camphor was put into a carious tooth, from which the patient was suffering great pain; this it relieved at once, but for some time afterward the patient was so elated that she appeared as though she had had a little of something else.

The peppermint plant yielding this oil and camphor is evidently a most valuable plant and deserves cultivation in this country, as it obviously possesses more powerful properties than the English plant. I have therefore sent for regular supplies of fresh seed of the plant; shall shortly be in a position to offer it for cultivation. I have also a large stock of the beautiful white camphor from this plant.

[From "Medicinal Plants," by Bentley and Trimer, London, England.]

Gynocardia Odorata*—Chaulmoogri—Petarcurrah.

Description. — A large tree, much branched; branches slender, bark rather smooth, ash-colored. Leaves alternate, somewhat drooping, distichous, shortly stalked, without stipules, 6–10 inches long, rounded at the base, suddenly acuminate and acute at the apex, quite entire, glabrous, shining above, veins very prominent beneath. Flowers unisexual, diœcious, large, on smooth curved peduncles 1–2 inches long, coming off in large clusters usually from the trunk in the female, or in smaller ones usually from the younger branches in the male tree; bracts minute, round the base of the peduncles. Male flower: Calyx cup-shaped, irregularly splitting into (usually) three segments, thick, smooth; petals five, large, spreading, strongly imbricate in the ovoid, bluntly-pointed buds, about three-fourth inch long, oval, obtuse, thick with thin margins, smooth, pale yellow, each provided with an ovate, acute, denticulate, thin, dark yellow, spreading petaloid scale attached to its base and scarcely one-third its length; stamens very numerous, hypogynous, spreading, shorter than the petals, filaments tapering, hairy, anthers linear, basifixed; no pistil. Female flowers: Calyx and corolla as in the male, but the petals somewhat larger; stamens represented by 10–15 small, linear, erect, hairy staminodes around the ovary; ovary very large, ovoid, rounded on the summit, smooth, one-celled, with numerous ovules attached to five parietal placentas, styles five, short, distant, spreading in a circle, stigmas peltate, dilated, lobed. Fruit nearly spherical, on a woody stalk, very large, about three and one-half inches in diameter, rough, ash-grey, indehiscent, one-celled, containing many seeds immersed in pulp, pericarp hard, thick. Seeds 1–1½ inch long, irregularly ovoid and variously flattened from mutual pressure, pale yellowish-grey, smooth, testa brittle, tegmen very thin; embryo large in the axis of the abundant endosperm, with flat leafy cotyledons with a cordate base, and a large very obtuse radicle prominent beneath the testa.

Habitat.—This tree is a native of Pegu, Tenasserim, and other parts of the Malayan peninsula, and extends into India, where it is found in Assam, Khasia and Sikkim, in the hills; but it does not reach the central or western parts.

The flowers are very fragrant, and appear in April and May; the large fruit, which has somewhat the look of a shaddock, is ripe in December.†

**Syn.*—Chaulmoogra odorata, *Roxb.* Chilmoria dodecandra, *Ham. Figure.*—Roxburgh, Pl. Coromandel, t. 299.

†Roxb., Fl. Indica, iii, p. 835; Hamilton in Trans. Linn. Soc., xiii, p. 500; Hook, f., Fl. Brit. Ind., i, p. 195; Lindl. Fl. Med., 103.

Official Part and Name.—GYNOCARDIÆ SEMINA ; the seeds (I. P.). They are not official in the British Pharmacopœia, or the Pharmacopœia of the United States.

General Characters and Composition.—These seeds, which are known in India under the names of *Chaulmugra*, *Chaulmogra*, or *Chaulmoogra*, have an ovoid form, which is of an irregular character in consequence of their mutual pressure having made them more or less angular or flattened. In length they vary from about one inch to one and one-fourth; in breadth they average half an inch ; and they weigh about thirty-five grains each. They are covered by a very thin, brittle, smooth, greyish-brown or dull grey testa ; within which is a dark brown oily nucleus. They have a faint, peculiar, somewhat unpleasant taste and odor.

These seeds have not been submitted to any complete chemical examination ; but they yield by expression a fixed oil which possesses in a marked degree their taste and odor, and in which their properties appear essentially to reside. This oil, as sold in the bazaars of India, is commonly very impure, and the means of detecting these impurities, hitherto very difficult, has recently been the subject of careful investigation by Dr. Dymock. When pure the oil is described as clear, of a pale sherry color, with the odor of chaulmugra, and a sp. gr. of 0.900. By keeping it throws down a granular white fatty deposit. The oil obtained by Dymock by boiling the powdered seeds in water was of a golden sherry color, fluid consistence, strong odor of chaulmugra, and formed no deposit. It would appear from Dymock's experiments that genuine chaulmugra oil shows two marked peculiarities when acted upon by sulphuric acid ; thus twenty minims were placed in a watch-glass and one minim of strong sulphuric acid, B. P., added, and on stirring with a glass rod the oil, whether drawn cold or by means of heat, gave first a burnt sienna, and afterwards a rich olive-green color. If drawn cold a tenacious, reddish-brown resinous mass, which could not be mixed with the rest of the oil, was found to form round the drop of acid ; but in the case of the oil extracted by boiling, no tenacious resin-like mass was formed under similar treatment with sulphuric acid.

Medical Properties and Uses.—Chaulmugra seeds are alterative tonic in moderate doses, and emetic in large doses. They have been employed with benefit in the form of a pill given three or four times a day, in doses of about six grains, gradually increased until they cause nausea, in scrofula, skin diseases, rheumatism, and leprosy. The oil is also given in doses of five or six drops, gradually increased, in similar cases. The kernels of the seeds beaten into a paste with simple ointment, as also the fixed oil of the seeds, are likewise employed as a local stimulant in various skin diseases, etc.

Substitutes.—The seeds of *Hydnocarpus Wightiana*, Bl., and of *H. venenata*, Gärtn., both of which species were formerly confounded together under the name of *Hydnocarpus inebrians*, Vahl, are reputed to possess similar properties to those of Chaulmugra. They are readily distinguished from these seeds by their smaller size, more flattened character, and dirty white color. They also yield by expression a fatty oil, of a greenish color, and with an odor somewhat resembling that of Chaulmugra, but more acrid. When treated with sulphuric acid in the way above mentioned in the case of Chaulmugra oil, the cold-drawn oil is described by Dymock as forming a tenacious resinous mass like it, while the rest of the oil turns off a light green color ; while the boiled oil, which is of a deeper green color, when treated with acid, becomes at first of a sienna brown, and ultimately a light green color. Hence these oils may be readily distinguished from the oils prepared in a like manner from chaulmugra seeds. They have similar properties, and are used both internally

GYNOCARDIA ODORATA.

(Drawn from specimens in the Herbarium and Museum at Kew, collected by Cleghorn and Hooker and Thomson in India.)

and externally in similar cases to those of Chaulmugra.*

[From advance sheets of "New Commercial Plants." From a paper by T. Christy, F. L. S., London, England.]

Chaulmugra Oil.

Although Chaulmugra has been known in the East for centuries, several medical men who have practised in India inform me that it is too strong for the natives, except when they are in a European hospital or in the service of a rich man, where they get plenty to eat. They have such a small amount of food as a rule, that their stomachs cannot support this oil, but Europeans experience no inconvenience when taking it.

Wherever Chaulmugra Oil has been tried in this country or America, the demand has increased. Some medical men, I am pleased to say, are trying the effect of mixing it with their drugs, and I intend to follow it up and chronicle the results for the benefit of patients and those interested in the advance of new remedies.

Mr. John Moss, in a valuable paper in the Pharmaceutical Journal on the chemistry of Chaulmugra Oil, reports that the properties of the oil are probably due, not to the alkaloid which is contained in it in very minute quantity, but to a body which he has named Gynocardic Acid. His analysis is as follows:

Gynocardic acid,	11.7
Palmitic acid,	63.0
Hypogæic acid,	4.0
Cocinic acid,	2.3

"These bodies exist in combination with glyceryl as fats, the two former in the free state as well."

Mr. Moss also demonstrates that the test of the purity of the oil as described by Dr. Dymock is fallacious, inasmuch as palm oil gives a color of the same character as that afforded by Chaulmugra Oil when treated with sulphuric acid as Dr. Dymock directs.

It is to the Gynocardic Acid in the Chaulmugra Oil that this green coloration is due, and it is to the same acid that the slightly acrid burning taste noticed when Chaulmugra Oil is swallowed, is due.

The inquiry comes so often to me for some guide as to how Chaulmugra Oil should be taken, that I propose to give what I know of the best mode of treatment.

For Rheumatism and Rheumatic Gout.—The oil should be liquified by heat and then well rubbed into the parts affected with the ends of the fingers.

At bedtime commence by taking one capsule containing five drops of Chaulmugra Oil—the next night two capsules, and if it is a case of long standing another capsule of five drops may be taken after the midday meal.

It is most important to remember that Chaulmugra must not be used if the stomach is empty, or it will produce nausea.

It is a perfectly safe medicine to give to a child if care is taken to administer it after food.

In the case of sprains and bruises many hunting-men can testify to the relief that they have experienced from Chaulmugra after severe falls. The application in this case is external rubbing.

Stiff joints will yield to a few days' rubbing with this oil.

For Neuralgia, Toothache and Sciatica. — This oil should be mixed with camphor and chloroform and applied externally, and well rubbed into the part affected; when this is confined to the nerves in the face a piece of cotton-wool may be saturated and placed in the ear and it will not cause inflammation. If in the jaw or tooth, then a piece of saturated cotton-wool may be placed in the mouth, and the face well rubbed. The relief is so rapid that many who have tried it declare it to be instantaneous.

For eruptions in the skin it is always best to consult the medical adviser before using the remedy as to the best means of using it.

It may be applied externally by rubbing, and taken internally. It is always best to commence with small doses of not more than five drops at night.

Whenever this oil is being used it is found to cause an increased appetite for food, and this symptom must be attended to, and a generous supply of food taken or a pain in the chest may result.

[Translated from the Prager Medicinische Wochenschrift December 17, 1879.]

Quebracho, and Its Influence Upon Certain Forms of Dyspnœa.

According to Schickendanz, South American physicians ascribe antifebrile properties resembling those of the calisaya barks to this drug, which comes from a tree "aspidosperma quebracho" (schlechtendahl), belonging to the family of Apocynaceæ, and is indigenous to the Province of Santiago and the vicinity of the City of Catamarca.

Penzoldt, whose communications (Sitzungsberichter physico-medical society, Erlangen 1879, 17 Febr. and Berl. kl. Wochenschrift 1879, No. 19) have for the first time called our attention to this subject, generally used the following formula for his experiments: 10.0 of the powdered bark, macerated eight days with 100.0 alcohol, filtered, evaporated, dissolved in water, again evaporated to dryness and dissolved in 20.0 water. Experiments upon frogs with 0.5 of the bark gave complete motor-paralysis of central origin, with paralysis of the respiratory organs and diminished frequency of the heartbeat (from 54 to 60 pulsations successively down to 8 to 10). This latter action was not caused "by irritation of the vagus." With rabbits 1.0 of the bark used hypodermically was followed by paresis of the extremities and difficulty of breathing; 2.5 caused death, preceded by paralysis of the voluntary movements, great dyspnœa and terminal convulsions (of dyspnœal origin?). Breathing was deepened and retarded. Changes in the frequency of the heartbeat occurred only upon intravenal injection, the blood pressure reaching the former height after a temporary sinking of the same.

In a healthy dog dyspnœa was caused with increase in frequency of the heartbeat and salivation. The temperature of the body was not perceptibly influenced by 5.0 of the bark. In dogs in which fever was induced by miasmatic infection, the action was similar. Also in man, healthy as well as feverish (from phthisis, intermittents with phthisis, pleuritis), 3 to 8 c.c. of the solution men-

*Pharmacopœia of India, pp. 27 and 440; Pharmacographia p. 71; Bengal Disp., p. 207; Mouatt, in Indian Ann. of Med. Sci. (1854), vol. i. p. 648, and Amer. Jl. of Med. Sci., N. S. vol. xxx, p. 493; Hobson, in Edin. Med. Journ., July, 1855, p. 50; Dymock, in Pharm. Journ., ser. 3, vol. vi, p. 761.

tioned above had no influence upon the temperature, and caused only immaterial diminution in the frequency of the pulse. Penzoldt found, however, in different forms of dyspnœa (from emphysema and severe bronchitis, phthisis, chronic pneumonic processes, with periodic asthma, and pleuritis) that after giving 1 to 2 teaspoonful doses of the above solution (sometimes 2 to 3 times a day), the frequency of breathing generally diminished, the respirations were less deep, and that especially the cyanosis (in phthisis and emphysema) was almost invariably diminished or removed. These effects lasted for hours and were followed, without exception, by greater or smaller, sometimes extraordinarily subjective, improvement of the patient. In one case of inherited pulmonary stenosis, and in another of thrombosis of the left main branch of the art. pulmonalis, the effect was very remarkable, though but temporary. Urged on by these observations, I have used an extract of the Quebracho wood (*this is less effective than the bark, which it is more difficult to procure*) since the publication of Penzoldt's article, and have used it in six cases of emphysema and chronic bronchial catarrh, viz.:

Prot. No. 2,801.—Johann Handl, messenger, 48 years old, emphysema, bronchitis, atheroma anterior, dein exsud. pleurit. sin. Received July 6, 1879. Had for three years (as a sequel to smallpox) cough, dyspnœa, yellowish to bloody sputa. Considerable distention of the air vesicles, epigastric pulsation, torpid liver. Diffused rhonchi and whistling respiratory sounds. Treated at first with inhalations and sometimes with opiates. Owing to exceeding shortness of breath, he was given daily from Oct. 30th to Nov. 3rd, two teaspoonfuls, 8 c.c. of the above mentioned extract of Quebracho. During this time the dyspnœa was considerably decreased, as was also the cyanosis. Improvement continuing, Quebracho was discontinued. On the 12th of November, owing to the return of the asthmatic difficulties in the afternoon, one teaspoonful of Quebracho was again given. In the night there was very material decrease of the trouble. Later (Nov. 17 to 26) liq. ammon. anis. and similar remedies were given without improvement, when November 29th Quebracho, with considerable relief, was once more given. December 9th dyspnœa returned, with exudation into the left pleural cavity. Half an hour after giving Quebracho, there was rapid decrease of dyspnœa and cyanosis.

Prot. No. 3,136.—Johann Nováh, laborer, in Nusle, 62 years of age. Received July 31st, 1879. Diagnosis: Emphys. pulm., marasm., dissolut. corp. vitr. Sin. Cough for twelve months, free expectoration, asthmatic difficulties. Severe emphysema, the respiratory murmur everywhere obscured by rales and bronchial sounds; great torpidity of liver. Up to October 15th, though using different expectorants and sometimes narcotics, there was no essential improvement. From October 15th to 25th, Quebracho in doses of one teaspoonful of the extract, 4 c.c. produced at first small, but later good, effects. From October 28th to November 18th, no medicine was given, after which Quebracho was again resorted to on account of the return of dyspnœa.

Prot. No. 4,073.—Barbara Procházka, wife of watchman, 72 years of age. Received October 6, 1879. Diagnosis: Emphys. pulm., catarrh, bronch. chr., slight scoliosis, much dyspnœa, cough, palpitation of the heart of a year's standing, weakness of stomach for the last thirty years. Great torpidity of the liver, atheromatous condition of the blood-vessels, increase of dyspnœa up to October 28. On this day irregular rhythm (each third systole suspended). Under varied therapy there was small decrease of subjective troubles. On November 8, on both sides of the posterior aspect of the lungs, loose rales covering the respiratory murmur entirely, severe dyspnœa, 4 c.c. extract Quebracho given; shortness of breath disappeared entirely; cough light. From November 12, tinct. cinchonæ comp. was given. Dyspnœa returned and continues in spite of repeated doses of quebracho (4 c.c. per dose) until November 20. It then improved under morphia. Since November 22 treatment with Waldenburg's pneumatic apparatus.

Prot. No, 4,138.—Johann Pelêik, sailor, 66 years of age. Received October 11, 1879. Diagnosis: Emph. pulmon. For the last year strong dyspnœa, and cough without expectoration. After giving twenty grammes of extract Quebracho, taken during twenty-four hours, considerable improvement; breathing easy. Under similar treatment improvement goes on until October 16, when the patient is discharged.

Prot. No. 4,385. Johann Sterh, street sweeper, 79 years old. Received October 28, 1879. Diagnosis: Emphys. pulm., catarrh, pulm. chron., marasmus. For a long time previous he had had severe dyspnœa, preventing sleep, defective nutrition. On both sides the respiratory murmur is covered up by loose rales. Up to November 2, under treatment with ipecac, and later with liq. ammon. anisi, there was decrease of expectoration, but steady and distressing dyspnœa. November 2, one teaspoonful of extr. Quebracho. On November 3, very marked improvement of asthma; happy expression of countenance, cyanosis relieved. On November 4, dyspnœa returns; sibilant rales. On account of great frequency (148) and irregularity of the otherwise strong pulse no Quebracho but ammonia preparations, were given.

Prot. No. 4,649.—Elizabeth Peth, fruit dealer, 72 years old. Diagnosis: Catarrh, bronch. chron. Received November 20, 1879. Diffused rales in both halves of the lungs, covering the respiratory murmur completely, severe dyspnœa. From November 23, Quebracho was given daily, with marked, steady improvement. On November 27, dyspnœa has ceased and the improvement keeps on until December 2, the day on which the patient was discharged. Case VII. came under observation December 14, 1879.

Prot. No. 4,830.—A woman 44 years of age. Severe dyspnœa, respiration 36 and labored; cyanosis, 8 c.c. extract of Quebracho. After ten minutes the breathing becomes suddenly free and reduced to 28; cyanosis vanished; subjective relief complete. This improvement kept on for twenty-four hours. During the following night a temporary, but very great, weakness of the extremities set in.

All cases mentioned above were out-patients, and appeared almost daily for examination. All have occupations which expose them to the inclemencies of the weather (messenger, street-

sweeper, fruit dealer, etc.) during the rough weather in the fall, for the sake of making a living. Nevertheless, the action of this drug, as reported by Penzoldt, has even in these cases been corroborated in spite of the continuance of the original cause. Though the extraneous circumstances in all the cases thus far observed have made detailed clinical examinations impossible, this much may, however, be stated:

1. That Quebracho has proved an excellent, though but temporary remedy against the dyspnœa caused by emphysema, bronchial catarrh and pleuritis.

2. That it has been followed after using it several days (up to 9 days) by no disturbance of digestion, or of the heartbeat, by no motor paralysis or weakness, nor other deleterious effects (with exception of the last case?).

This new remedy may therefore justly be recommended for further trial and would make a very desirable addition to the materia medica, even if its benefits were restricted to the more temporary relief of distressing dyspnœa. As the experiments on animals mentioned in the beginning of this article show, care in the administration of this drug is to be recommended. As regards the explanation of the action of this drug, we may, in short, mention the theory of Penzoldt, which has been corroborated by experiments, that the remedy might by its direct influence enable the blood to take up more than the usual quantity of oxygen, so that the blood flows with a lighter red color than usual through the capillaries into the veins.

The fact that the remedy causes dyspnœa in animals if given in larger doses could be explained, according to Penzoldt, by the increased capacity for the absorption of oxygen which ample doses impart to the blood, and also by the property which the drug seems to possess of increasing the intimacy of the relations between the oxygen and the hæmoglobin.

Quebracho (according to a communication of Prof. J. Weisner of Vienna,) means literally "axe-breaking," therefore, "Tree of hard wood." Two kinds of the drug were presented at the International Exhibition: Q. Colorado (also called rosado) and Q. Blanco. The former is derived from a Terebintacea: Loxopterygium Lorentzei Griesb; the latter, as mentioned before, from an apocynacea: aspidosperma quebracho. The very hard and heavy wood of the latter forms a good tanning material and contains about 18 per cent. tannic acid, which is however not identical with that of the oak bark or oak wood. On account of its cheapness it has been imported lately in larger quantities for purposes of art. Out of the bark, which Dingler has examined pharmacognostically, George Fraude has prepared an alkaloid in small, white, prismatic crystals, which he called aspidospermin. The same is easily soluble in alcohol and ether, very slightly soluble in water and melts at 205° to 206°. The muriatic and sulphuric salts are very easily soluble in water. The taste is intensely bitter. Fraude gives to the alkaloid the following formula:

C. 22, H. 30, N. 2, O. 2, or
C. 22, H. 28, N. 2, O. 2.

It appears to approach the Cinchona group. The extract made as above mentioned out of Quebracho wood is fluid, dark brown, and of a bitter astringent but not disagreeable taste.

[From the Practitioner, London, England.]

Picrotoxine in Pathological Sweating.

Wm. Murrell, M. D., M. R. C. P., gives his experience with Picrotoxine, the alkaloid of Cocculus Indicus, in the treatment of night sweats. The reasoning which led to the employment of this agent would seem to be in the line of *similia similibus*. He had noticed that pathological sweating might be avoided by Dover's powder, an agent extensively employed as a diaphoretic, and was thus induced to turn his attention to other sweat excitors. He employed a solution of Picrotoxine of one grain to half an ounce, and commenced administering it very cautiously, having no data on which to fix the dose further than the statement of Crichton Browne, that "a twentieth of a grain of Picrotoxine may be regarded as the minimum fatal dose in a rabbit weighing about three pounds," and that a thirtieth of a grain was the smallest quantity that had killed a guinea pig weighing about a pound and a quarter.

The first case was that of a little girl who had fallen away terribly, and was very short of breath. For weeks past she had had profuse sweating night after night. "She was *so* hot at night" she said, "and her things were quite wet; it would lie on her face like beads." She was ordered a drachm of the solution in eight ounces of water, of which she was to take a teaspoonful the first night with instructions to increase to two teaspoonfuls the next night if necessary, and no ill effect followed. Should this dose fail, two teaspoonfuls three times a day were to be taken. The sweating was much less after the first teaspoonful was given. After a teaspoonful on the second night there was less than the night before; the third night she took another dose and there was scarcely any. On the fourth night none was taken, and there was no return of the perspiration. On the fifth night, no medicine being again taken, the sweating was very profuse. It was again given for several nights with the effect of again stopping the sweating. The medicine being again suspended, the perspiration was normal for eleven days. On its again recurring a single dose of the mixture again stopped it, and there was no return for ten days. The mixture was tasteless, was taken without difficulty, and produced no ill effects of any kind.

The second was a young man of 19, with dullness and flattening at the right apex, and bronchial breathing. He had had night sweating for a fortnight, almost every night. The medicine was taken in the commencing dose of a teaspoonful and increased to four teaspoonfuls on the fourth night, with the effect of stopping the sweats which, not returning for a fortnight, the patient was sent into the country.

The third patient was a policeman, aged 23, with a cavity at the right apex. He looked weak and ill, and had had profuse sweating for five or six weeks. He required larger doses than the other cases, but increased to a teaspoonful of the eight-ounce mixture every four hours, the medicine succeeded in breaking up the sweats.

Other trials were made: ten men, seven women, and three children, and only one failure was met with. The youngest patient was a boy of 8, and the oldest a man of 45. Usually the drug was given only at bedtime, but sometimes a dose was

taken three or four times a day. The plan of giving it solely at bedtime answered admirably.

In the case of the failure the remedy did some good at first, but afterwards, though increased to 1-6oth grain, it failed to be of any service.

In a case of asthma in which there was profuse sweating during the paroxysms, the Picrotoxine had no influence either on the dyspnœa or the sweating. *Grindelia Robusta* being given in this case, the paroxysms, and with them the sweating, were relieved.

[Extract from Bot. of Jam. by Jas. McFadyen, M. D.]

Goyana Domingensis—Chewstick.

This is a very agreeable bitter. It is used as a substitute for hops in the ginger beer, and what are called the cool drinks of the country. The infusion has been employed in gonorrhœa, and as a light and grateful bitter in cases of debility, to restore the tone of the stomach. In powder it forms an excellent dentrifice; its aromatic bitter producing a healthy state of the gums, and the mucilage it contains working up by the brush into a soap-like froth. A tincture also is prepared from it, and much recommended, diluted with water as a wash or gargle in cases of salivation or diseases of the gums. The principal use to which the Chewstick is applied is as a substitute for the tooth-brush itself. For this purpose the extremity of a piece of a branch, which is usually about the thickness of a little finger, is softened by chewing, and then rubbed against the teeth. In this manner a tooth-brush, and with it a powder, is obtained, *equal*, if not *superior*, to any in use in Europe.

Correspondence.

Benzoate of Soda in Diphtheria.

Q. Has any one of my colleagues used nitrum benzoicum in cases of diphtheria? If so, what is his experience, and how is he satisfied with the experiment? In what doses and what manner has it been used? I deem it a valuable remedy in that terrible disease. AUG. NASSE, M. D.

HERMAN, Mo.

Coto Bark in Diarrhœa.

I have tried coto bark with prompt success in a case of diarrhœa with tubercular complications. The following is the formula I have employed:

℞. Fl. ext. coto bark,
Comp. tr. cardamon, ♏ ʒ ij.
Mucilage acacia.
Syrup, ♏ ʒ ss.
Cinnamon water, qs ad ʒ viij.

M. Sig. A tablespoonful every three hours.

J. B. CRANDALL, M. D.

STERLING, O.

A Unique Ejection.

Not long since I was called to see a girl-child of 18 months who was suffering from chronic dysentery, and very anæmic. In a few minutes after arriving I administered a small dose of fluid extract valerian to control nervousness. She had scarcely swallowed the medicine until she began retching and trying to vomit. Her efforts were extreme, and I began to be somewhat apprehensive, when all at once she ejected a fibrous substance some three inches long and as large as an adult index finger. The substance was not gelatinous, but *fibrous*, and when it was attempted to disintegrate it, it stretched like india rubber. I had never seen anything like it before, so I ask my medical brethren, through your journal, what was it? J. B. CRANFILL, M. D.

TURNERSVILLE, Texas, Dec. 11, 1879.

Eucalyptus—Ustilago Maidis.

I have prescribed Eucalyptus somewhat freely during the past three years in the various forms of malarial disorder and am satisfied that it is an agent of much value. I regard it as an antiseptic and think it acts by neutralizing the miasm.

I have employed corn ergot in several cases of uterine hæmorrhage with prompt and permanent benefit. It certainly stimulates the uterine fibre to contraction, and has proven itself serviceable whether the hæmorrhage has been due to exalted or depressed arterial action. A. CRESSY, M. D.

HILLSDALE, Mich., Jan. 5, 1880.

Chaulmoogra Oil.

Although not an M. D., but simply an artist, I take the liberty of communicating to you the results of the use of a remedy on my own person, which remedy I was induced to try through an article which I came across in your journal. My description is from a layman's standpoint, and may not be strictly technical in its phraseology. One day, early in August, my arm commenced to pain me, and on making an examination as to the cause of it, I found that there was a spot about half as large as your hand, situated between my elbow and shoulder, that had turned a dead white. It must have come suddenly, or I should have noticed it while taking my bath. Well, I went immediately to Dr. P., of this place, and he was unable to tell me what was the cause of it. He advised me to let it run and see what it would amount to. The pain became so intense in a few days that I felt that I must do something, and so I went to another physician. He said an ulcer was forming at the bone. He gave me some medicine, and whether it was that or some freak of nature, I certainly got better; but was not so long. I went to another physician, and he wanted to try electricity, which I would not consent to. I visited others, but no one could tell what was the matter. A traveling doctor came along, and I went to him. He said it was leprosy, and that the spot on my arm "was closely connected with my heart." I, of course, knew better, and so I didn't have anything more to do with him. Going into F. E. Wright's drug store one day, I picked up your journal containing notice of the Chaulmoogra Oil, and I thought I would try it. My arm acts in this way: The pain comes on generally before a storm, and is confined to that one place—it is my left arm—and in about an hour it passes away, and I am taken very sick in my stomach; and this sickness lasts sometimes for more than two hours. There are times when it throws me into a chill—occasionally fever sets in; and it generally uses me up for at least a day. The spot on my arm has been more or less sensitive all the time; the flesh is thick and dry, and I never had been able to get any color in it until I begun to use the Chaulmoogra Oil.

Since receiving the oil I have taken it according to the directions given me; and have latterly been using it on the outside. I notice a decided change.

I am feeling better; my appetite is better, my arm is certainly better, for there is a trace of color coming into it, and the skin seems to be getting thinner. I remain yours, etc., WALT. D. MAISCH.

BATAVIA, N. Y.

Berberis Aquifolium.

Having employed Berberis Aquifolium somewhat extensively in my practice during the past year, I desire to add my testimony to that already gathered on this new remedy.

I have found Berberis Aquifolium to be possessed of a wide range of applicability. The effects of the medicine are noticed after a few days' use in the clearness of the skin and the brightness of the eye, and in the increased tone and feeling of systemic wellness (to coin a word). This result is a very desirable one in the commencement of treatment of a chronic case. It inspires confidence and the patient is encouraged to continue. The chronic invalid who becomes worse on the first prescription of his new medical adviser is very apt to discontinue. In the vast majority of chronic cases a tonic is indicated, and the one having the immediate good effects of berberis has long been a desideratum. The good effects are, however, by no means temporary, for a continued use of the drug, from its combined tonic and alterative properties, will be found to produce permanent good results in most of the cases in which debility is a factor.

Mrs. E., of Union, had suffered from rheumatism and hepatic complication for fifteen years. I placed her on Berberis Aquifolium and Cascara Sagrada and without the aid of any other drug she made a satisfactory recovery. And Mrs. H., troubled with hepatic torpor and neuralgic pains, which had made her life miserable for twenty years, and Mrs. T., of this place, a chronic dyspeptic, and suffering from the aches and ailments which are wont to attend this deplorable condition, were both restored to health under the same combination. I could mention other cases, but these are sufficient to illustrate my point, viz., that those cases dependent on a general condition of debility and loss of vitality, are almost invariably benefited, in my experience, by the tonic, alterative properties of Berberis Aquifolium.

F. W. OLIVER.

STEAMBOAT ROCK, Iowa.

The Dose of Veratrum Viride.

Just as I am without one plea,
But that thou hast come straight for me;
And that thou bidst me come to thee
Oh child of innocence, I come, I come.

—(*See page* 285, *last words*, *Vol. III*, *New Preparations.*)

"Justice and the interests of science" seem to require, that I should very briefly notice Dr. Latta's commentaries on pages 284–5 of New Preparations, November number, and right here while our eyes are streaming with penitential tears and before we may, perchance, harden our heart against him, we desire, most humbly, to beg Dr. L.'s forgiveness. Is it possible that we referred to him as "away out" in Lincoln, Nebraska! Our article so says, but we assure Dr. L. that it must have been written in a moment of frenzy. Certainly we could not have stopped to consider or we would never have been so careless in our assertions, and now if we shall be so fortunate as to obtain forgiveness this time, we will never refer to that "Capital" city in any but the most fitting language—surely not as "away out;" why? Because Dr. says "it don't apply," and of course it don't; and now in turn we beg Dr. L. not to locate us on the Saginaw river, for although it may "apply," still, somehow, we can't bear it. Now having, as we hope, put ourselves in a more favorable light, we proceed still farther "in the interests of science" to explain how it might occur that our critic of the "Capital" city, situated in the "most beautiful country you ever saw," finds so much in our article that is distasteful to him, and the secret of the whole thing seems to be no secret at all, but simply consists in his looking through the "green-eyed monster's" borrowed eyes, and the result is only a common one, viz.: that he magnified a little mole-hill until it grew to a mighty mountain, that obscured his finer sense of vision to such an extent that he could only discern about one-half of our article, which half was made up of parts of sentences only, and being thus isolated from the rest, he has quoted from such portions as best suited his disordered imagination, and where he would have readers of his article infer that I said "I did not consider a three-teaspoonful dose necessary at the time I gave them," or to that effect. If any one will take the pains to refer to my article he will readily see that what I actually did say was, that since that summer I have not given one-third teaspoonful doses of veratrum, simply because I do not think it necessary, deeming smaller doses quite sufficient for the *antispasmodic* effect (which I did at the time I gave it) and depending on less depressing *emetics*, etc. Now cannot Dr. Latta understand that it was for the *emetic* effect that we gave such large doses? And the *emetic* effect we invariably got as stated in our article. Now such effect having been obtained, it was of little consequence whether we gave one-third or one teaspoonful, for, remaining in the system but a short time, but a very small portion could be absorbed into the circulation. Again we did *not* say that chloral and bromide potash are never used as antidotes. What we did say, however, was in substance, that no one but a man in advance of the age would give chloral or bromide potassium as an antidote to poisoning by veratrum Certainly the isolated portion which he has quoted made us say quite differently, but by reading back a few lines and taking its connected meaning, our article says substantially as we have above stated. We were also aware that proof has been shown that a fatal dose of chloral will neutralize a fatal dose of strychnia, etc., etc. So far as "cumulative doses" are concerned we used the term in its ordinarily accepted sense. We did not say "cumulative in its effects." If Dr. L. has never heard of an "omnibus" or an "omnibus prescription" or an "omnibus dose" he will not need to go far for a practical illustration. Dr. L., however, says he don't care much about it anyway, except so far as the proper administration of the remedy in question is concerned, and of course he does not, as any one can see from the tone of his article. Now, so far as Dr. L. on veratrum is concerned, we have had our say and drop them both as dangerous to handle and some what stale to the profession at large.

A. F. HAGADORN, M. D.

WEST BAY CITY, Mich., Dec. 5, 1879.

The Therapeutic Gazette

WM. BRODIE, M. D., Editor.
64 Lafayette Avenue.

DETROIT, MICH., JANUARY 15, 1880.

GEO. S. DAVIS, Medical Publisher.
Box 641.

Chicago Medical Gazette.

THROUGH an inadvertence the Chicago Medical Gazette was omitted from our clubbing list, as published in the December number. The omission has been supplied, and this valuable journal will be furnished to subscribers to THE THERAPEUTIC GAZETTE for $1.50, or the two journals, containing (for 1880) 888 large octavo, double-column pages of reading matter, for $2.50. We would ask attention to the selected list on Advertising Page XV. Physicians who have not yet selected their reading matter for the current year, will find in this list one which they will do well to secure.

New Name—New Dress.

IN pursuance of previous announcement we appear in this number under a new name. The reasons for this change were set forth in our last, and need not be repeated. We enter upon the duties of the new year under all the encouragement which even the most exacting could desire. A retrospective survey of the past year gives us much hope for the future, and if we may count on a continuance of the favors which were so freely bestowed during the past year, in the way of contributions and kindly expressions (and we feel that we may), we can promise the readers of THE THERAPEUTIC GAZETTE that pleasure and profit which they have a right to expect from perusal of its pages. This much, at all events, we feel like saying: if we fail to give satisfaction the fault will be largely due to a lack of that support which every medical man owes to his journal, to accord. It is not our purpose at this time to descant on the relations which should obtain between the reader of a journal and its editor, and will merely throw out the hint that in the many failures which have checkered the record of journalism during the past year even, the editors should not be held alone responsible. Let each reader feel it to be his duty to contribute to the common fund his experience in the use of remedies, and particularly those of more recent introduction, in the treatment of disease, and the aggregate will make a journal whose influence in advancing therapeutics will make it a power in the medical world.

Our change of dress has, of course, already been observed. Certainly the new garb which we have donned for the new year can leave nothing to be desired in the way of typographical appearance. Our printers, Messrs. W. H. Thompson & Co., of the Post and Tribune job office, of this city, have given, in THE THERAPEUTIC GAZETTE, a journal which we feel safe in saying is unsurpassed—if it is even equalled—in mechanical execution by any medical journal in this or any other country. The type of this number comprising the beautiful and neatly-cut faces of the nonpareil and brevier, old style, and light faces for display advertisements, is from one of the first and largest type foundries in the United States—that of Messrs. Farmer, Little & Co., of New York city, and was supplied through their agents, Messrs. Cornwells, Price & Co., of this city.

The Study of New Remedies.

THE Philadelphia Medical and Surgical Reporter, for December, has an editorial under the above caption, from which we make the following extract:

With regard to new remedies, a great many physicians take one of two sides; either they are like the ancient Greeks, lovers of novelty, and ready to run after almost any new thing; or they are hidebound and stiffbacked, refusing to use or to try anything until they are forced into it by the demands of their patients or the success of their competitors.

It is needless to say that both these camps are in the wrong, and that here, as in so many other matters of conduct, the middle way is the safest. Progress comes by proving all things and holding on to that which is good—quite as much in the holding on as in the proving, however. Physicians must exercise greater caution in testing novelties than any other branch of investigators. They deal in human life and human fate, and pain and death follow the tracks of experimenters in these precious articles. It was long since said, by an eminent English surgeon, that two results followed him who tried many new remedies—he soon lost his patients, and soon had no patients to lose. For all that, it is blind conservatism to refuse the aid of fairly approved methods because they are novel.

No doubt the woods and fields of this country hold plants whose virtues would be as beneficial, if known, as cinchona and ipecac.; no doubt chemistry will discover more valuable agents than chloral and carbolic acid. Hence no one should turn his back on these fruitful and promising fields of research.

Especially does the indigenous botany of the United States deserve the close scrutiny of medical men for plants of medicinal powers. Hitherto there has been no systematic and scientific course pursued in its investigation. The traditions of frontiersmen on the recipes of old wives have guided the inquirer more than anything else; and it must be added that those who have most profited by it have not been the regular profession, but the members of narrow sects, botanic and eclectic doctors.

It is time that this should cease, and that scientific medical men should address themselves to ascertaining what are the actual properties of the numerous plants with therapeutic powers. In the first place, every such plant should be correctly identified. For this, the common name is but little guide. In different parts of the country the same name is applied to several diverse plants; or several are jumbled under one. For example, no less than nineteen different species of plants, belonging to eight different genera, are known as "snake root" in various parts of the United States; under the allied names "squaw root," "squaw weed," or "squaw bush," plants belonging to nine different genera are designated. Hence it is absolutely impossible to secure any accuracy ftom such appellations.

Having identified the plant, the next step should be to collect from literature, both medical and popular, its claims as a therapeutic agent. Common and trivial sources should not be despised. Open secrets of value have lived for generations among the populace, disregarded by the profession. Much has been learned by surgeons of this generation, from the popular arts of "bone-settin."

The general correctness of these remarks cannot be gainsaid. The reference to the eminent English surgeon is, however, apt to mislead: "that two results followed him who tried many new remedies—he soon lost his patients, and soon had no patients to lose." We presume our contemporary refers to Sir Benjamin Brodie. If so, its quotation is garbled, and, used in the connection in which it places it, does not properly represent Sir Benjamin. The remark was made while lecturing to his class on the use of veratrine ointment, then

one of the "new remedies" which had relieved a case of ticdouloureux after all other remedies had failed. Sir Benjamin urged a thorough familiarity with the old remedies, and a trial of them before resorting to the new remedies. In the failure of the former, however, he commended a trial of the latter. By commencing with new remedies *de novo* "you throw away all the valuable results, not only of your own experience, but of the experience of those who have gone before you. The first consequence of this will be that you will not cure your patients; and the second, that you will have none to cure." This is wholesome advice, and is as true to-day as it was thirty-five years ago, but to advance it as argument against new remedies, as they are now introduced, is at once far-fetched and unfair. Surely no remedy is now introduced to the profession which cannot base the claim it makes on some experience in its use. All remedies were once new, and the time when they were first employed is difficult to fix. Their history shows that many, if not the majority of them, were long in use before they attracted the attention of the profession, and it was only when the physician had his attention directed to them that they became "new," in the sense of term as it is now applied in this connection. With very, very few do the profession begin positively *de novo*, the reports coming from the people, in one form or another, in the majority of instances, serving as the basis of scientific research. This is a legitimate basis, and its recognition has done very much for the advancement of the science of therapeutics.

The Sanitary Convention.

TO Detroit belongs the proud distinction of being the city in which was held the first Sanitary Convention ever assembled in this country. The intimacy of the relations existing between the prevention of disease (prophylaxis) and the cure of disease (therapeusis) makes it proper that we should refer to the late gathering.

The convention was held under the auspices of the State Board of Health and assembled at St. Andrew's Hall, in this city, on Wednesday morning, the 7th inst. That the occasion was one of widespread interest was evidenced both by the presence of prominent sanitarians from different parts of the country, and by the expressions in the letters of regret from those who were unable to attend. The object of the gathering was, of course, the promotion of sanitary science, and to that end a feature of the convention was the exhibition of sanitary appliances. Among these may be mentioned the Odorless Excavating Apparatus, an instrument, by the way, which has been in use in this city for several years and which is steadily growing in favor. Its use in the cleaning of vaults has done away with the disagreeable, as well as dangerous, exhalations which were formerly associated with this work. A variety of water closets were exhibited, being so arranged as to show the methods of their working, their modes of cleansing, stench traps, etc. A filter for potable water, samples of porcelain cooking utensils, Parmenter's Air Moistener, and other articles were also on exhibition. Parmenter's Air Moistener consists of a series of pans with water surface, designed to moisten the air of living rooms.

The meeting was called to order by the President of the convention, William Brodie, M. D., who, after prayer by Rev. C. T. Allen, called upon Prof. R. C. Kedzie, of the State Agricultural College, for a few introductory remarks. He gave the following answer to the natural question, "Why should we have this Convention?"

We have conventions to guard our political rights, as embodied in the various political parties of the country. We have conventions to consider our educational system and protect our religious rights; and these are recognized as perfectly proper, needing no explanation and no apology. We have conventions to determine great matters of trade and commerce, and this is recognized as right and proper; and amongst the various conventions I noticed the other day that there was a convention of undertakers to consider the question how best to put people out of the way when they have got through with this world. If we can have conventions to decide in regard to our liberties, our political rights, our pockets, our educational rights, and to decide in regard to how we shall be disposed of after we are dead, it seems to me it is certainly proper that we should have a convention to consider the question of how we should live. The question of health is more vital to us than these. Our political and religious rights are very important; we may use them in connection with health, and if we have not health these other rights pass for but very little, except the right of being buried. We have great conventions to determine our suffragatory rights. Let us have what is more important—great conventions to determine methods and means for securing the best possible health to all the people of this country. For the discussion of these questions we are gathered here this morning. We come not so much to listen to the discussions of experts who have given months and years to the investigation of these various questions; all these are valuable, and we trust will be of great benefit to us; but in addition to these we want to pool all the facts which relate to our public health—to throw them into a common fund, that out of this common fund we may each of us derive the benefit to which we are entitled.

Letters of regret, received from a number of gentlemen whose names are intimately associated with sanitary matters, were read by the Secretary, Dr. C. C. Yemans, after which the President delivered his address, from which we make the following extracts:

. . . We have met to-day to inaugurate the first meeting, the board trusting it may be the harbinger of many future ones.

In classical mythology health was represented in the person of Hygeia, the daughter of Æsculapius, and who was worshiped at Athens, Corinth, Argos and other important cities, and in works of art is usually represented as a blooming virgin with a snake, the symbol of health, which drinks from a cup held in her hand. From Hygeia has arisen that part of medicine whose object is the preservation of health, and which is popularly known as hygiene.

It embraces, first, the knowledge of the healthy, both in society and individually; and, second, the conditions that tend to lower that health in producing disease and premature death. The first part of the definition does not come within the range of the object of this convention. It is the second part we have to deal with; to repeat—What are the conditions that tend to lower health, produce disease and premature death? We are taught that "it is not what entereth the man that defileth him," but "what cometh out of the man that defileth him." . . .

It is with the air and the earth and the water that we are at present interested. Pure air, pure water and a clean soil are absolutely necessary for a healthy existence to man, and any deviation therefrom when persisted in must ultimately produce disease of some character or other. These aberrations are protean in character, but time will not permit us to enter upon a general investigation of them at this meeting.

For ages past these investigations have been chiefly conducted by the members of the medical profession, under the head of "causes of disease," which, although not originally germain to their calling in a mercantile point of view, nevertheless, laying aside the question of profit and loss, they have entered upon the yet higher sphere of "prevention of disease" and the prolongation of life theory.

The way being thus opened by the medical profession, and the intelligence of the present generation having been thus

directed to their own welfare, others have arisen to aid in the prevention of disease and its corollary, prolongation of life. Thus to-day the people themselves have taken an interest in their own well being.

. . . To those educated in the great phenomena of life, but little difficulty is found in accounting for the causation of disease and ultimate death, and the medical profession have not hesitated to present them to the people. For years they have sounded the alarm, and practically have been powerless to prevent or remove them.

Reform is a tree of slow growth, and it is not until stern necessity manifests itself by unmistakable signs that the admonition is heeded.

The question of vaccination was discussed, and the fallacy of the position taken by the anti-vaccinationists exposed. The use of bovine virus would remove the only valid objection to vaccination.

There is another evil which is detrimental to the public health, and which should be remedied, viz., the location of slaughter-houses within the limits of a city or large village.

The great Napoleon Bonaparte, as early as 1807, knowing the injurious results to the public health arising from the private slaughtering of animals for food in the midst of the crowded population of Paris, passed a decree for the erection of public abattoirs outside of the populated portions of the city and on the borders of the river Seine. Other cities in France followed the example; also Brussels, England and Scotland to a limited extent. In our own city are private slaughtering-houses in its settled portions; and although the solid materials are carted away, yet the animal fluids and washings are allowed to enter the sewers, there to decompose, and the poisonous effluvia, in spite of the traps, arise and mix with the air we daily breathe. For this there is only one remedy, and Bonaparte solved it seventy-three years ago.

Another object in holding this convention was to give an opportunity for the manufacturers of sanitary appliances, specialties or machinery, to bring them forward for general examination. You will find that some manufacturers have accepted the invitation. I would therefore suggest that a committee be appointed to examine such articles as may be presented and report their observations and recommendations to the convention.

The following papers were read and discussed, and we regret our inability to reproduce them:

Dr. V. C. Vaughn, of Ann Arbor, on "The Contamination of Drinking Water by Infiltration of Organic Matter."

A. J. Murray, V. S., of Detroit, on "Contagion Among Animals."

Dr. J. S. Caulkins, of Thorneville, on "The Prevention of Contagious Diseases."

Dr. C. J. Lundy, of Detroit, on "Light in the Public Schools and School Life in Relation to Vision."

Dr. Henry F. Lyster, of Detroit, on the "Prevention of Pulmonary Consumption."

Hon. Henry W. Lord, of Detroit, on "Sanitary Rewards and Punishments."

Mr. W. F. Craig, of Detroit, on "The Inspection of the Sewerage System of Detroit."

Dr. Duncan McLeod, of Detroit, on "Ventilation of Dwelling Houses."

Mr. Thos. A. Parker, of Detroit, on "The Principles of Ventilation."

Dr. W. H. Rouse, of Detroit, on "Neurasthenia or Nerve Exhaustion."

Dr. A. B. Prescott, of Ann Arbor, on "The Use of Household Filters for Potable Water."

Dr. R. C. Kedzie, of Lansing, on "The City of Destruction."

Mr. G. A. Watkins, of Detroit, on "The Supply of Milk for Cities."

A lady submitted a paper on "Training Schools of Cooking," which was read by the secretary, the lady not wishing her identity to be revealed.

Dr. Carl Jungk, of Detroit, on "Adulteration of Food."

Prof. J. M. B. Sill, of Detroit, on "School Hygiene."

Dr. C. C. Yemans, of Detroit, on "Cosmetics."

Dr. John S. Billings, U. S. A., although not submitting any paper, took part in the discussions and supplemented a number of the papers with valuable and interesting extempore remarks.

The above list will give an idea of the amount of work, and the nature of it, which occupied the attention of the convention during the two days in which it was in session. The importance of a convention of this nature requires no argument, and we have no doubt that it will be followed by others of a similar nature in different parts of the country at no distant date.

Notes and Comments.

Carnauba Root.

This recent introduction to the list of therapeutic agents appears, from the very scant literature which we have been able to secure on the subject, to merit a thorough trial. It is classed under the head of vegetable alteratives, and its use in Brazil, to which country it is indigenous, has made it very popular in the class of cases in which sarsaparilla, stillingia, etc., are employed with us.

Chaulmoogra Oil.

Chaulmoogra Oil is the product of the plant *Gynocardia Odorata*. Although in long use in India, it has but lately been introduced in England, from whence it has reached this country. It has achieved prominence as an external application in skin diseases. Its alleged beneficial result in consumption, taken in connection with its acknowledged virtue in skin affections, would seem to fix it as an alterative. We are in receipt of communications attesting its curative properties in local skin diseases, and enough has been gathered to warrant us in commending it as at least worthy of a trial. We hope that those who may, on this recommendation, put it to the test, will favor us with the results of their experience.

Vaccinium Crassifolium.

We are in receipt of a sample of this drug from Dr. Thomas B. Wood, of the North Carolina Medical Journal. Dr. Wood claims for it diuretic powers equal to those of uva ursi. It has long been used in North Carolina, both by the profession and as a domestic remedy. It was first employed by Dr. E. A. Anderson, of Wilmington, N. C., and the demand for it would seem to be evidence in favor of the claims made for it. We hope soon to be able to announce that a fluid extract, or some other eligible preparation of the drug has been placed in the hands of the profession.

We may mention in this connection that Dr. Wood is engaged in the preparation of a work on the "Plants Around Wilmington," which will comprise over 1,100 species, several of which are possessed of medicinal virtues. The doctor has also promised us an article on Sarracenia Flava, which will be illustrated with cuts of the plant for an early number of THE THERAPEUTIC GAZETTE.

Quebracho.

The reports which have reached us concerning Quebracho certainly fix it as a remarkable drug, and one of very unique properties—filling a place in medicine, the vacancy of which every practitioner must have frequently realized. If its future results in substantiating the claims already made for it, it will prove to be the most valuable article given to the profession in many years, for of the other remedies there is scarcely one which has not its synergist, which in any emergency

might be substituted for it. Quebracho seems to stand alone in the distinctiveness of its property of an oxygenizer. Its modus operandi has not yet been determined, experiments on animals showing it to have an opposite effect on them to that on man—causing dyspnœa in the former, while markedly relieving this condition in the latter. There are, of course, other instances of opposite effects of the same agent on man and beast, and Quebracho is not peculiar in this regard. If the subsequent trials, which results thus far obtained will certainly justify, succeed in fixing it in the position in which it has been placed, an invaluable addition will have been made to the therapeutics of pulmonary complaints. We hope to receive reports for our readers on this interesting article.

Dita Bark—Alstonia Scholaris.

This drug is a native of the Phillipine Islands and has been long known on account of its tonic and anti-periodic properties, having achieved considerable reputation as a substitute for the Cinchona barks. It was first introduced to the profession of Europe some twenty years ago, and was then received with much favor. It soon, however, became almost forgotten, owing to the difficulty which was experienced in securing sufficient supplies. Lately a small lot was received into this country, and being placed on the market the same difficulty was soon experienced which led to its abandonment in Europe years ago, viz., the impossibility of supplying the demand. To meet the case another variety of Alstonia, the Alstonia Constricta, has been introduced. This drug is a native of Australia, from which country the American market is supplied. Although a valuable anti-periodic it does not possess the marked properties of the Alstonia Scholaris, and is, therefore, but an imperfect substitute.

Here is another of the instances in which a slight difference in the name of the drug is liable to lead to much confusion as to merit. The case of Cascara Sagrada (rhamnus purshiana) is still fresh in the minds of our readers. They will remember the disrepute into which it was sought to bring this drug by confounding it with buck thorn (rhamnus frangula). It is, therefore, but proper that the distinction between Alstonia Scholaris (dita bark) and Alstonia Constrica (the Australian fever tree) should be indicated.

Book Reviews and Notices.

The Chemists' and Druggists' Diary for 1880, London, England.

We beg to acknowledge the receipt from the Chemist and Druggist of a copy of the Diary, which we believe it is the custom of the enterprising publishers to issue annually to their subscribers. In addition to the Diary proper, the book contains a fund and variety of information which must make it invaluable to an Englishman, and even an American having once seen it would be very loath to dispense with it. Besides the information regarding British and Foreign Ambassadors, Apprenticeship Law, Bank Holidays, Consulates and Colonial Agents in London, London doctors and their addresses, etc.—of especial value only to an English resident—it contains suggestions and rules regarding pharmaceutical preparations, prescriptions, dispensing, poisons, tariffs, trade-marks and a host of other things of universal interest. It is, we repeat, an admirable work.

Physicians' Hand-book for 1880—23d year of publication. By William Elmer, M. D., and A. D. Elmer, M. D.

This popular standard manual has been thoroughly revised and entirely re-written. Price, $1.75 with printed matter, and $1.50 without; postage free. On receipt of $4.00 that old and valuable semi-annual Braithwaite's Retrospect and Physician's Monitor will be sent for one year. W. A. Townsend, publisher, New York City. We cordially recommend Elmer's Hand-book to the profession.

Medical News and Abstract.

This is the title of a new medical journal edited by I. Minis Hays, A. M., M. D., and published by the old house of Henry Lea, Philadelphia, and is a consolidation of the "Medical News Library" and the "Monthly Abstract of Medical Science." Published monthly, $2.50 per annum in advance, and forwarded in conjunctiou with the American Journal of Medical Science for $5.00 in advance.

The Boston Medical and Surgical Journal.

This old established journal has by a process of evolution assumed a metropolitan character and comes to its readers for the year 1880 in a new style and is now a model weekly of 24 pages, double-columns. It has also an editorial head, and can speak, so to say, like other journals and as becomes its age and character. We heartily unite with it in expressing the hope "that a prosperous and happy New Year is in store for it." Messrs. Houghton, Osgood & Company have done their part as publishers. Price $5.00 per annum.

A Dictionary of German Terms Used in Medicine. By George R. Cutter, M. D., Surgeon of the New Eye and Ear Infirmary. Opthhalmic and Aural Surgeon to the St. Catherines and Williamsburgh Hospital, etc., etc. New York: G. P. Putnam's Sons, 182 Fifth avenue; 1879. Price, $3.00. E. B. Smith & Co., Detroit.

This is a handsome and convenient book of 304 pages. The author states that possibly some important words have been overlooked, and that material improvement can be made in a future edition. Suggestions to such improvement will be thankfully received. We would suggest that in the next edition Dr. Cutter give the leading English terms used in medicine, in German. Even if it did increase its size it would be the more valuable and desirable to the profession. As it is, it is a great aid to the readers of German medical works, even if they are translated.

A Biographical Dictionary of Contemporary American Physicians and Surgeons. Edited by William B. Atkinson, M. D., Permanent Secretary of the American Medical Association and of the Medical Society of the State of Pennsylvania, etc., etc. Second edition, enlarged and revised. Philadelphia: D. G. Brinton, M. D., 115 South Seventh street; 1880. From the Publisher—Price in cloth, $5.00; in leather, $6.00. E. B. Smith & Co., Detroit.

The extent of this work has only been limited by the profession itself. Circulars were sent to every known physician, and those only have been omitted who failed to respond, or who from inadvertence did not receive it. The publisher proposes to make it as near perfect as possible. In the volume before us are the biographies of 2,622 medical gentlemen—most of them leading members of the profession in all the States and Territories.

In presenting this work the publisher believes he is performing a labor which will be welcome to the profession of the present day, and we are sure it will be more so to future generations. Of course, in such a work unavoidable mistakes have been made, and which are more the fault of the reporters than of the editor. Provision, however, is made to correct all such in the next edition, and the publisher will be only too happy to do so. No medical library, public or private, can be complete without it, and we advise all who are interested in the lives of their co-laborers to procure a copy. It is presented in a handsome manner and reflects credit on the publisher.

Chicago Medical Gazette, E. C. Dudley, M. D., Editor and Publisher, 70 Monroe street. Published on the 5th and 20th of each month. Terms, $2.00 per annum. Twenty-four pages.

This is a new aspirant for professional patronage, and Brother Dudley shies his castor into the journalistic ring without so much as a "How do you do, gentlemen." This journal is intended to be independent, for we cannot find that its editor has committed himself to any one thing in particular. The number before us is a good one, and its articles show that they have been carefully written, in fact we should say the editor has written almost every article himself, as no journal is credited with a selection. This editorial character is to be so kept up in the future. We wish both the journal and its editor substantial success, for they really merit it to an unusual degree.

American Health Primers. The Throat and the Voice. By J. Solis Cohen, M. D., Lecturer on Diseases of the Throat and Chest in Jefferson Medical College, and on the Physiology and Hygiene of Voice in the National School of Oratory and Elocution. Philadelphia: Lindsay & Blakiston, 1879. Price, 50 cents. E. B. Smith & Co., Detroit. Edited by W. W. Keen, M. D.

This is No. 5 of the series, and maintains the character of its predecessors. It does not pretend to teach either the art of practising medicine or the art of cultivating the voice, but it is the aim of the author to direct the general reader to some scientific facts concerning the *throat and the voice*, and to present for consideration some opinion and advice based upon an intelligent appreciation of those facts. We commend it highly to all those who make special use of the throat and voice, either in obtaining a livelihood or as amateurs. Although giving remedies in the milder form of the diseases, the author shows his good sense in advising that it were better in all cases to consult the family physician.

Pamphlets Received.

Ninety-Seventh Annual Catalogue of the Medical School (Boston) of Harvard University, 1870-80. Reprint from catalogue of the University.

Excision of the Knee Joint with Cases. By Joseph Eastman, M. D. Reprint from transactions of Indiana State Medical Society, 1879.

Woman's Sphere in Medicine. An introductory lecture to the lady matriculates of the University of Michigan Homœpathic College, 1879.

From the author: Catalogue of the Officers and Students of Howard University, from March, 1878, to March, 1879, Washington, D. C. Compliments of Dr. J. E. Brackett.

Address by the President of the Virginia State Medical Society—L. S. Jaynes, M. D., LL. D., of Richmond, delivered at the meeting held at Alexandria, October 21, 1879. Report from transactions. From the author.

A Contribution to the Study of the Bullous Eruptions Induced by the Ingestion of the Iodide of Potassium. By the same author. Reprint from Archives of Dermatology, October, 1879. From the author.

Vick's Illustrated Floral Guide.—A beautiful work of 100 pages; one colored flower-plate and 500 illustrations with descriptions of the best flowers and vegetables with price of seeds and how to grow them. All for a five-cent stamp. In English or German.

Tea Culture as a Probable American Industry. By William Saunders, Superintendent of the Gardens and Grounds Department of Agriculture. Read before the New York Horticultural Society at its meeting in New York City October 7, 1879. Compliments of the author.

A Clinical Lecture on Tubercular Leprosy, delivered at the dermatological and venereal clinic, Rush Medical College, September 28, 1879, by J. Nevins Hyde, M. D., Professor of Skin and Venereal Diseases, Rush Medical College. Report from Chicago Medical Journal and Examiner for December, 1879.

A Case of Complete Inversion of the Uterus.

Reposition after the confinement by means of continued moderate pressure, without the aid Anæsthesia. Remarks upon the modern treatment of chronic inversion. A paper read before the Suffolk County Medical Society Nov. 20, 1879, by Clifford E. Wing, M. D., Boston; with the writer's compliments.

Transactions of the Kansas State Medical, at its 13th annual meeting, held in Atchison, Kansas, May 13, 14 and 15, 1879. Compliments of William B. Carpenter, M. D., Lansing, Kansas.

This is a pamphlet of 117 pages, and shows by its contents that our brethren in Kansas can issue a volume of proceedings and as valuable in character as many of their more favored, aged medical societies in the East, and we wish them success.

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Therapeutic Progress.

WHAT MIGHT HAVE BEEN A FATAL MISTAKE.—At a sale in London, during the early part of October, a number of small gourds of *curare* were exposed for sale, and labeled *aloes!* They were tasted by several people, who, fortunately, owing to its bitterness, probably ejected their saliva immediately afterwards, for had the mucous membrane of the mouth been in any case abraded, the consequences must have been disastrous. As soon as the true nature of the drug was known it was withdrawn from the sale.—*Pharm. Journ. and Trans.*

CODEIA AS A SEDATIVE.—In phthisis, it allays cough without disturbing the digestive system, and, in the other class of cases, I have found it tolerated when opium and morphia were not. As an instance of the latter, I may quote the case of a medical friend, a member of a gouty family, a frequent sufferer from migraine and derangement of the liver, and well aware of his intolerance of preparations of opium. He complained of a

troublesome cough, depending on slight catarrh of the trachea and bronchi, and, at my suggestion, tried codeia, with all the benefit and none of the ill effects of opium. I prescribe the drug in doses of a grain, dissolved in syrup of tolu. The French medical papers constantly contain advertisements of codeia syrup, and probably it is well known as a cough tincture in this country; but I was not aware, and others may have been ignorant as I was, that it has those advantages over the preparations of opium and its other alkaloids. —*Dr. R. Saundby, in Braithwaite's Retrospect.*

Treatment of Dysentery by Injections of a Solution of Chloral.—In the case of a child of 11, who suffered with thirst, pain, tenesmus, and had twenty-five to thirty dejections in twenty-four hours, five grains of chloral hydrate in two ounces of starch gruel were thrown up the bowels with considerable force, from a hard rubber syringe. The injection remained three hours, during which time the child slept. Many of the other symptoms were modified, and the injection was repeated, remaining seven hours, and then came away with some fœcal matter, but without tenesmus. Four enemas were given, in all, and treatment was discontinued in forty-eight hours. It was also tried in the case of a lady, aged 25, using ten grains instead of five, and securing complete repose for eight hours, although she had previously had twenty to thirty movements in twenty-four consecutive hours. In conclusion: The number of aggravated cases of dysentery we have treated with chloral hydrate warrants us in the assertion that, if early and promptly used, it is almost a specific.—*Dr. Newell, in the Medical Times.*

Defibrinated Blood for Rectal Alimentation. —During the sixth stated meeting of the Therapeutical Society of New York, the Committee on Restoratives, through its Chairman, Dr. Andrew H. Smith, presented a report, a summary of which may be thus stated:

The report covers sixty-four cases.

Thirty-eight were of phthisis. Of these, in eight the treatment was not well borne; ten were not noticeably benefited; twenty received benefit—some of them slight, others very decided.

One case of diarrhœa in phthisical patient made worse.

Nine cases were of anæmia. Of these, one was not benefited; eight were greatly improved or cured.

Five cases were of dyspepsia. All benefited, some of them remarkably. Several apparently cured.

One case of dyspeptic asthma entirely relieved while the treatment was continued.

Four cases of exhaustion from various causes, all benefited.

Three cases of neuralgia; one not benefited, two decidedly improved.

Two cases of gastric ulcer; one not benefited, death taking place from hæmorrhage; one rescued when apparently moribund.

From the facts before them, the committee feel warranted in the following conclusions:

1. That defibrinated blood is admirably adapted for use for rectal alimentation.

2. That in doses of two to six ounces it is usually retained without any inconvenience, and is frequently so completely absorbed that very little trace of it can be discovered in the dejections.

3. That, administered in this way once or twice a day, it produces in about one-third of the cases for the first few days more or less constipation of the bowels.

4. That in a small proportion of cases the constipation persists, and even becomes more decided the longer the enemata are continued.

5. That in a very small percentage of cases irritability of the bowels attends its protracted use.

6. That it is a valuable aid to the stomach whenever the latter is inadequate to a complete nutrition of the system.

7. That its use is indicated in all cases not involving the large intestine, and requiring a tonic influence which cannot readily be obtained by remedies employed in the usual way.

8. That in favorable cases it is capable of giving an impulse to nutrition which is rarely if ever obtained from the employment of other remedies.

9. That its use is wholly unattended by danger.—*New York Medical Journal.*

Remarks on Six Cases of Elephantiasis Græcorum Treated with Chaulmoogra Oil.—From the comparative rarity of true leprosy in this country, it is very difficult to obtain a sufficient number of cases on which to base our conclusions as to the effect of treatment; and therefore the positive results of any experiments in the use of drugs must be received with caution. There is another fact which must also be taken into consideration, namely, that leprosy—at least in healthy climates—is liable to long periods of comparative rest or subsidence, quite apart from any special treatment. It is, in short, one of the features of the disease that it does not progress uniformly. Sometimes it appears for a time to be cured, and then breaks out again without any apparent cause. It is very necessary to bear these facts in mind, because those who are unacquainted with the peculiarities of the disease are apt to attribute to remedies what really is the natural course of the malady under the influence of a mild and healthy climate.

Since the publication of my Gulstonian lecture on this disease, in 1873, I have had in all over twenty cases of true leprosy under my care; and I have given, as far as I was able in a limited number of cases, a fair trial to the Gurjun and Chaulmoogra oils. My conclusion is that neither remedy can be regarded as a specific for the disease. Chaulmoogra Oil has long been used in India for the treatment of leprosy, and has acquired a considerable reputation as a therapeutical agent; but I have never met with one well-authenticated case of complete cure under its influence. I have given a long and continuous trial to Chaulmoogra Oil in six cases of this disease, and with apparent benefit in all; and the patients themselves have been strongly impressed with the belief that they had decidedly improved under its internal use as a medicine. On the other hand, not one case has been cured, though in several instances the oil has been taken continuously in full doses for more than a year, and in one instance for more than two years. I would add that all the cases of leprosy

on which I tried the effect of the oil were of several years' standing.—*Robert Liveing, M. D., Cantab. F. R. C. P., in the London Medical Times and Gazette.*

THERAPEUTIC NOTES.—*Jaborandi* has proved invaluable in anasarca from acute albuminuria, and also in post-scarlatinal effusions into the pericardium and other serous cavities. In one case of general dropsy, in an adult, half a drachm of fluid extract of Jaborandi was given every four hours, together with spirit of mindererus and spirit of nitre, and a compound jalap powder at night, the patient to be kept warm in bed. Profuse diaphoresis ensued, and, in forty-eight hours, all dropsical symptoms had entirely disappeared and have not since returned.

Gelseminum is an unfailing remedy in the early stage of acute gonorrhœa. The fluid extract should be given four times a day, after meals and at bedtime, beginning with six or eight drops, and increasing two drops every dose up to twenty drops, or till the patient experiences the peculiar intoxication, when it should be continued in smaller doses, as much as can be easily tolerated, for a few days, or till the discharge becomes lighter and disappears. An eighth of a grain of morphia is sometimes advantageously added to each dose. Saline purgatives, rest and abstinence are essential parts of the treatment. After the acute stage has passed, copaiva and the oil of sandal wood will soon complete the cure. They should be taken in reduced doses for ten days after the last symptoms have disappeared, to guard against a relapse or a gleet. If injections are finally required, there is none equal to the extract of pinus canadensis, from two to forty drops in half a teacupful of water. Strong injections, such as nitrate of silver or sulphate of zinc, are dangerous, especially in the early stages, on account of the risk of causing orchitis or a stricture.

Rhammus Purshiana, fluid extract, has proved remarkably efficient in constipation and some forms of dyspepsia, either alone or in combination with other laxatives or tonics. The dose is from ten to sixty drops before meals. If the increased demand does not cause adulteration, it will prove a valuable addition to our materia medica.

Enothera Biennis, fluid extract, is a medicine which has not yet begun to be appreciated, but which fulfills many important indications. It is a safe and perfect nervous sedative, acting chiefly through the sympathetic system. It is not poisonous in overdoses, as most nervous sedatives are. I have prescribed it frequently for ten years, and feel that I could not do without it. In fevers, it relieves nervous irritation, and, by relaxing spasm, moistens the skin and increases all the secretions. In dyspepsia, if taken before meals, it relieves the uneasy sensations about the chest and abdomen, and, if taken at bedtime, will insure a peaceful, natural sleep, and relieve that desire to urinate which frequently disturbs the rest of the dyspeptic. In some forms of hysteria, nervous asthma, diarrhœa, dysentery, it is useful by itself, or combined with other remedies. In pursuing an expectant plan of treatment, there is no medicine which can be so safely given with a fair chance of doing good. The usual dose is from five to sixty drops. In one case of well-marked remittent fever where the patient took two ounces by mistake, it produced no unpleasant effects, but seemed to act beneficially, for the fever disappeared without further treatment. A convenient manner of administering it is to add one teaspoonful to twelve of water, of which one teaspoonful is to be given every hour. Its taste is like that of cold tea, and it is acceptable to any condition of the stomach.—*James G. Sullivan, M.D., in Western Lancet (San Francisco).*

New Remedies.

CAYAPONIN.—The alkaloid of Cayaponia Globulosa, a cucurbitaceous plant of Brazil, is a powerful purgative in doses of six milligrams (1-10 grain) without causing griping.—*Rép. de Ph., and Ph. Zeit. f. Russl.*

SCLEROTIC ACID.—Speaking of this substance the Medical Times and Gazette says: It has the advantage of remaining indefinitely without loss of strength, if only kept in a dry place and undissolved. Its sodium salt Nikitin considers the best preparation for internal use in the human subject. Subcutaneous injection of either drug causes a "sharp biting" pain, which passes off in a few minutes. Von Zeimssen claims for Sclerotic Acid over Ergotin that the former causes no inflammation at the seat of puncture.

MENTHOL AS AN ANTISEPTIC.—(Dr. H. Hager.) Japanese or Chinese oil of peppermint contains a large amount of stearopten (menthol), so that it forms a solid mass at ordinary temperature. This solid portion of oil of peppermint is likely to become an article much in demand, for, according to Duncan's statements, it has antiseptic powers equal to those of thymol. In some wholesale German price-lists it is quoted as Oleum Menthæ Japonicum Crystallisatum, price 62 marks (nearly $16) the kilo.—*Pharm. Centralb.*, 394.

EUCALYPTUS IN BRONCHITIS. — Dr. Bell says: "The Eucalyptus Globulus has remarkable anti-catarrhal virtues. The only preparation which I have used has been the tincture prepared by several of our most eminent druggists in Edinburgh, and I have seldom prescribed more than a teaspoonful mixed with a wineglassful of water twice a day. In several cases of bronchitis, with profuse expectoration, I have witnessed remarkable benefit after a very brief use of the remedy, evinced by a rapid diminution of the discharge, and also by a corresponding improvement in the general condition of the patient."—*Druggists' Circular.*

BALSAMUM ANTARTHRITICUM INDICUM.—A substance with this name has, during the last two or three years, been introduced into Germany, as a very valuable remedy in acute and chronic muscular and articular rheumatism. It is used as an inunction, and greatly aids, according to Dr. Von Hölder, of Stuttgart, the action of salicylic acid. He has also employed it most advantageously in connection with massage in that troublesome complaint, arthritis deformans. His report was con-

tained in the Berlin *Klin. Wochenschrift* (No. 26, 1878); but in the same journal (No. 46, 1878) a pharmacist of Frankfurt, Dr. Hirsch, claimed that this balsam, alleged by Van Hölder to be obtained from a tropical leguminous plant, was, in fact, nothing but an oily product, obtained by distilling the resin of the spruce pine, with, perhaps, some unimportant admixture. Now, however, Dr. Mathes, of Frankfurt, (*Memorabilien*, June, 1879), claims to have proven that the said balsam is a product of the *Eperva falcata*, a tree of French Guiana, and that the observations before referred to, as to its virtue in rheumatism, have been amply verified by numerous and accurate observations of his own.

GUARANA.—Drs. Vegas and Montes de Vea discuss the value of this plant in asthmatic troubles. It is found throughout the tropical regions, from the Atlantic to the Pacific oceans. It is called by different names in different countries, as yaquima hembra, in Puerto Rico; guaruma, in Panama; yarumba, in Peru; ciatotapatl, in Mexico; amhanba and ambaitniga, in Brazil; sambacuin, in Pernambuco; matatanba, in Alagoas; pé de galinhe, in Seijipe; ambay, in Paraguay; trumpet tree, in Guayana and Jamaica. It corresponds to the family of nitocarpeas, and the urticeas of ancient authors, and to the diocia diandria of Linneus. The trunk of the plant or tree is from thirty-six to forty-six feet in height, full of moderate size and straight branches, of ash color, presenting the tropical form of the Mamon—(carica papaya). The bark of the Ambay is used as an astringent in diarrhœa and blenorrhœa. The twigs and buds, in the form of a decoction, are used in bruises or abrasions of the skin, and ecchymosis. The juice, mixed with equal parts of milk, is used in gonorrhœa and leucorrhœa; and the pulp of the trunk of the tree is employed in cancers; the decoction of the leaves in pulmonary complaints, and in simple bronchitis. In Paraguay, a decoction of the twigs and leaves is employed in dropsies, in hepatic affections, and in the neuroses generally. Its virtues are analogous to the dedalera. It is considered a specific in asthma. In anæmic affections, palpitations of the heart ceased under its prolonged use. Wine of guarana has been beneficially used in the capillary bronchitis of children by Dr. Bonanng, of Naples. By its use, the quick respirations were soon changed from fifty to twenty-six in the minute; at the same time, a little ipecac and cutaneous revulsives are to be used as adjuvants.

SCLEROTINIC ACID THE ACTIVE CONSTITUENT OF ERGOT.—Nitkin (*Chl. f. Med.*, 1879, p. 764; from *Würzb. Phys. Med. Verhandl.*) has experimented with Sclerotinic Acid in both warm and cold-blooded animals. He found sclerotinic acid in the urine of warm-blooded animals two hours after injection, while at the end of forty to forty-eight hours it had entirely disappeared. A personal subcutaneous injection of .03 centigr. to 1.0 grm. into the arm gave a sharp, biting sensation, with a feeling of warmth through the entire member; a pale patch, with red areola, appeared at the point of injection. Both disappeared after thirty-six hours. Sclerotinate of sodium acted in the same manner, only the smarting disappeared in five to eight minutes. The fatal dose for frogs was 0.12 centigr.; for small cats, 0.30 centigr.; for rabbits, 0.80 centigr. Of sclerotinate of soduim the fatal dose was somewhat larger. Fatal injections lowered the temperature of warm-blooded animals, which remained lowered until the end. The pupil became narrowed in the stage of paralysis, and continued so. Autopsy showed brain and spinal cord œdematous and empty of blood; lungs congested and emphysematous at the edges; intestine congested, especially in the mucous membrane; urinary and gall bladders very full. As the result of his numerous and carefully conducted experiments, Nitkin concludes that Sclerotinic Acid possesses all the physiological and therapeutic effects of ergot, and therefore must be regarded as the chief active ingredient of this drug. Sclerotinate of sodium acts in the same manner, but more feebly. The effect of both seems to be exerted upon the central nervous system. Blood-pressure was reduced only by large doses; the heart remained unaltered. Death was preceded by stoppage of respiration. The fatal dose for man is reckoned at ten grammes. An advantage of Sclerotinic Acid over ergot is that if kept dry it does not alter by age. Nitkin thinks the sclerotinate of sodium the best form for administration.

NITRITE OF AMYL IN AGUE.—Dr. W. E. Saunders, of Indore, calls attention to the value of Nitrite of Amyl in ague, and records a number of cases in which advantage has been derived from its use. The drug itself, he remarks, is expensive, and goes a long way.

He now uses Amyl Nitrite with an equal part of Oil of Coriander to render it less volatile, and at the same time to cover its odor. He regards it as the most powerful diaphoretic he has seen, and he uses it in all cases of fever to produce diaphoresis.

The following is one of his cases: Mr. F. C. came for treatment about 7 P. M., in the cold stage of ague. Two minims of Nitrite of Amyl were administered. Sweating came on in seven minutes. He lay down for half an hour to get cool, and then walked home well. He, next morning, took a dose of quinine, and has had but one attack of fever without the cold stage since. Previous to this he had fever every day for one month, during which he took large doses of quinine.

Dr. Saunders observes that he does not mean to say that quinine should not be used in these cases, for there is ample proof that it tends to check the return of the attacks, and removes to some extent the septic condition of the blood, induced by the malarial poison, and this more especially if small doses of opium are combined with it. In no case did the Amyl fail to remove the attack in about one-third the usual time, and in most cases the fever did not return. His method of administration is this: Four drops of the above mixture, or two of Amyl, are poured on a small piece of lint, which is given into the hands of the patient, and he is told to inhale it freely. He soon becomes flushed, and both his pulse and respiration are much accelerated. When he feels warm all over, the inhalation is discontinued, as the symptoms continue to increase for some time afterwards. A profuse perspiration now sets in, which speedily ends the

attack. In some cases, however, the cold stage passes off without any hot or sweating stage.—*Indian Medical Gazette—The Practitioner.*

DITA BARK.*—*Apocyneæ; Cortex Alstoniæ; Cortex Alstoniæ Scholaris.*—Botanical origin: Alstonia scholaris (R. Brown) (echites scholaris, L.), a handsome forest tree, fifty feet or more in height, common throughout the Indian peninsular from the sub-Himalyan region to Ceylon and Burmah, found also in the Phillippines, Java, Timor and eastern Australia, likewise in tropical Africa. It has oblong obovate leaves, in whorls of five to seven, and slender pendulous pods a foot or more in length.

History.—Rheede, in 1678, and Rumphius, in 1741, described and figured the tree, and mentioned the use made of its bark by the native practitioners. Rumphius also explained the trivial name scholaris as referring to slabs of the close-grained wood which are used as school slates, the letters being traced upon them in sand. The tonic properties of the bark were favorably spoken of by Graham in his catalogue of Bombay plants (1839), and further recommended by Dr. Alexander Gibson in 1853.—Pharmac. Journal, XII, 1853, 442. The drug has a place in the "Pharmacopœia" of India, 1868.

Description.—The drug, as presented to us by the late Dr. Gibson and by Mr. Broughton, of Ootacamund, consists of irregular fragments of bark one-eighth to one-half an inch thick, of a spongy texture, easily breaking, with a short, coarse fracture. The external surface is very uneven and rough, dark gray or brownish, sometimes with blackish spots. The interior substance and inner surface (liber) is of a bright buff. A transverse section shows the liber to be finely marked by numerous small medullary rays. The bark is almost inodorous; its taste is purely bitter, and neither aromantic nor acrid.

Microscopic Structure—The cortical tissue is covered with a thin tuberous coat. The middle layer of the bark is built up of a thin walled parenchyme, through which enormous, hard, thick-walled cells are scattered in great numbers, and are visible to the naked eye, as they form large irregular groups of a bright yellow color. Towards the inner part these stone cells disappear, the tissue being traversed by undulated medullary rays, loaded with very small starch grains; many of the other parenchymatous cells of the liber contain crystals of calcium oxalate. The longitudinal section of the liber exhibits large but not very numerous laticiferous vessels, as elongated simple cells with perforated transverse walls (sieve-cells) containing a brownish mass, the concrete milk juice in which all parts of the tree abound.

Chemical Composition.—Gruppe (*Zeitschrift des Oesterreiche Apoth. Vereius*, 1873, 249), a pharmacien of Manila, has obtained from the bark an uncrystalizable bitter substance which he calls *ditain*, from dita, the name of the tree in the island of Luzon, and to which he ascribes the febrifuge powers of the drug.

From the chemical examination of the bark of an allied Australian tree, *alstonia constricta*, F. Von Müller, it may be presumed that the bitter substance of alstonia scholaris is not an alkaloid. The Australian bark analyzed by Palm in Wittstein's laboratory *Vierteljahreschrift für Pract. Pharm.*, xii., 1863, 161) yielded an amorphous resinous bitter body, soluble in alcohol, but very sparingly in ether or water, an essential oil of camphoraceous odor and tannic matter striking a green hue with salts of iron. Palm ascertained that the bitter principle is not of a basic nature. The Australian bark, a specimen of which has been presented to us by Dr. Wittstein, is quite different from that of alstonia scholaris in its structural character.

Uses.—The bark has been recommended as a tonic and antiperiodic, but has not yet been employed in Europe. It has been recently extravagantly praised in Manila as a substitute for quinine.

CORTEX ALSTONIA SCHOLARIS (*Dita Bark*).—I have lately brought to Europe for distribution and trial a medicine which though in occasional use among the natives of some parts of India has, to the best of my knowledge, never had a place in the general pharmacopœia, even of the Eastern physicians. In fact it is a drug known only to the forest practitioners, who have a knowledge of the virtues of trees and herbs very far exceeding that possessed by the more civilized Indian native practitioners. These latter deal much more largely, and I may safely add much more destructively, in mineral remedies.

The medicine now under report is the bark of Alstonia Scholaris R. Br., a great tree of the natural order *apocyneæ*, found in the forests of Malabar, Canara Soonda, and some other parts of India, and brother to the smaller Alstonia Venenata R. Br., which (as the name imports) is very poisonous. It has obtained the trivial name Scholaris from the fact of small planks of its finely-grained white wood being commonly used in some localities for the school-boards whereon children trace their letters (with sand) as in the Lancasterian system, originally imported from the East. I had long known that the bark of the tree was occasionally used in bowel affections, but from the suspiciously active family to which it belongs I had dreaded to bring it into practical use, as my own opportunities for doing so were very limited, and I deemed it more than possible that its use in the hands of others might not be managed so cautiously as circumstances appeared to require.

Major De l'Hoste, of the Bombay army, had procured a quantity of the bark, and having made a tincture from it, used it with some success in bowel complaints, occasionally very prevalent in the extensive native establishments which he had under his control while constructing a new road in the south of India. When I visited the Major in the course of a forest tour, I rejoiced to find that he had thus paved the way for a successful trial of the drug. I have since then repeatedly used it as a remedy in diarrhœa attended with tormina. and even with tenesmus, and I can safely say that in every case it has given relief to the symptoms. The relief has most generally been permanent, occasionally only

*From the "Pharmacographia," a history of the principal drugs of vegetable origin met with in Great Britain and British India, by Frederich A. Flückiger, Ph. D. and Professor in the University of Strassburg, and Daniel Hanburg, F. R. S., Fellow of the Linnean and Chemical Societies of London. London: Macmillan & Co. 1874. The right of translation and reproduction is reserved.

temporary, and such as to require a repetition of the dose. My practical experience of its effects has not been sufficiently continuous to enable me to indicate the particular state of alvine or biliary secretion to which its use is most applicable. Points like these are for the determination of the clinical practitioner, having leisure and opportunity to record the results of hospital practice. It has also appeared to me to possess marked effects in promoting the expulsion of intestinal lumbrici. Of its effects in cholera, European or Asiatic, I have as yet only one case recorded, and that of the European form of the disease. The patient, a tailor in Edinburgh, was treated solely with this medicine, and (as the accompanying letter testifies*) with the best effect. I send the case for your perusal. In the General Hospital of Bombay it was tried in chronic diarrhœa, and the cases treated by means of it seemed to have an average of success about equal to those which were treated by other means. From this we may possibly infer that its use is less indicated in these chronic affections than in the sudden and more severe attacks attended by tormina. As I have now forwarded some for trial to Dr. Christison of Edinburgh, to M. Guibourt of Paris, to Mr. Quekett of the College of Surgeons, to Mr. Macfarlane, druggist, Edinburgh, and to yourself, I indulge the hope that we may be able to have a good estimate of its value as a medicine in diarrhœa and in cholera, also as a vermifuge applicable to the destruction of lumbrici, which, from our experience in the East, we find to be almost invariably present in some visitations of epidemic cholera.

I have usually formed the tincture with ℥ iij. of the bark, coarsely bruised, to a pint of proof spirit, and I have also occasionally given the powdered bark in a pill, combined with rhubarb, ipecacuanha and extract of gentian. The dose of the powder may vary from three to five grains.—*Alexander Gibson, Surgeon Bombay Establishment, in the London Phar. Journal and Transactions.*

[We have selected the above article, written nearly thirty years ago, as illustrating an interesting chapter in the history of this drug. Its anti-periodic properties were not those by which it was first known, but through its use in affections of the bowels, its remarkable influence in malarial disorders, was soon discovered. The remedy is one of those old ones which are regarded as "new" through the discovery of properties which they were for a long time not known to possess.—Ed. Therapeutic Gazette.]

*The following is the letter referred to:

"My Dear Sir: I cannot delay until I see you, the pleasure of telling you about a very severe case of British cholera treated entirely with tincture alstoniæ. On Monday morning last a man was lying in a low house in Carruthur's Close, having been in bed since the Friday, on which day he was seized with violent vomiting and purging, and when I saw him on Monday he had taken nothing but a dose of castor oil, and had not tasted food since the Friday. He was very low, and exhausted with frequent clear watery evacuations mixed with a quantity of clear mucus, showing the lining membrane of the bowels to be in a very irritable state. I immediately went up to Baillie Macfarlane's and got two ounces tinctura alstoniæ, and administered one teaspoonful, directing his wife to give him some toasted bread with hot water poured on it. In an hour and a quarter I called back; he had had three evacuations since I had seen him. I gave him another teaspoonful, and saw him an hour and a half afterwards, during which interval he had *no evacuation*. I made him some arrowroot with a little brandy in it, which he took, and it lay on his stomach, and in half an hour gave a third teaspoonful. He was now decidedly better and felt inclined to sleep, so I left him. The next morning (Tuesday) better; had no stool since I saw him last, but much exhausted and sore all over. To-day he was up and at his work, which is a blessing, as he has a wife and five children depending on him. His name is Hugh Short, a tailor; Mr. Gibson will know who he is. The Tinctura Alstoniæ seems, so far as I can judge, to be a fine aromatic astringent bitter, and the sooner it has a place in the pharmacopœia of the Edinburgh College the better. I have no doubt that within twelve months it will be a known and *fashionable* medicine, for, strange to say, medicines have their fashions as well as ladies' dresses, and a new one is always in fashion; but I hope this will be something more, indeed a standard remedy in *all* bowel complaints, and be the means of doing away with pernicious treatment by means of drugs containing opium, substituting as it does a simple and uncomplicated medicine. I am, my dear sir, most truly yours, WILLIAM GRAY.

Willow Bank, Newhaven, Nov. 10, 1852.

To Dr. Alexander Gibson."

Transactions of Societies.

Wayne County Medical Society.

Detroit, June 5, 1878.

Dr. Leonard read the following paper on

ADHESION OF VAGINA TO THE UTERUS—OPERATION.

Mrs. C——, aged about 50 years, consulted me, at the suggestion of Dr. Davenport, some months since, for constant pain in the back and pelvis, radiating down the thighs, more or less, pain on defecation, but usually no trouble in making water. She was since five or six years past a menopause, hence no menstrual complications. The pain she complained of was often so severe that she was many times unable to be upon her feet at work at all, and hardly able to sit up. Accompanying this was quite a profuse yellowish leucorrhœa.

On questioning the lady, I learned that she dates the commencement of her trouble to an abortion that she had had some fifteen or sixteen years ago. Following this she had a high fever, purulent discharge from the vagina, and was confined to her bed for months. When her strength did return, which was very slowly, she was unable for several years to walk upright, but supported the bowels by her hand, or hands, when walking in a bent-over position. The discharge from the vaginia, excessive tenderness, etc., gradually grew less, though the sense of tension and drawing within the pelvis still remained. Quick, or hurried walking, or dancing she had never been able to do.

She had been examined, and treated locally by a prominent physician in the central part of the State, who had recognized at the time, some eight or ten years ago, the condition of affairs, but thought any operative procedure would be fatal, so relied upon topical applications and washes, upon which treatment she was considerably improved. Last year, being much worse, again she consulted a female physician of the city, and received the opinion that she had a tumor growing from the mouth of the uterus.

Knowing this, I asked for an examination. The digital procedure showed an absence of the mouth of the uterus entirely, and in its place a protruding portion from the anterior, inferior portion of the cervix simulating a fibroid in its feel; but no neck proper of the uterus could be felt. Backwards there was simply an exterior cicatricial enlargement that fitted the *cul-de-sac* of the vagina, which dips

into the Douglasian sac completely, in fact, puckering out till the anterior margin was beyond that of the protrusion of the anterior lip.

I then introduced my speculum, but could only partially expand the blades, owing to the much narrowing of the vagina through the vicious cicatrices at its upper portion. The part which I took for a tumor on the digital examination, I now found was the hypertrophied anterior lip. The os was not visible, but by inserting a stiff probe closely down to the tip of the lower blade of the speculum, where it touched the posterior vaginal wall, it entered the excoriated os. It could only be made to engage in it so closely was the vaginal wall to its posterior margin.

My diagnosis was adhesion of the posterior wall of the vagina to the uterus, with complete obliteration of the pouch behind the cervix, the uterus being bound down by the adhesions in a retroversive position. The cicatricial bonds, extending forward upon the cervix to the os, encircling the neck to this extent.

As the vagina was excoriated at its upper portion with the os uteri, the endometrium undoubtedly being in the same condition, I advised preliminary treatment of hot water douches and glycerined tampons of cotton, until there was less irritation, then surgical operation of dissecting off the bands of adhesive material.

This plan was carried out for several weeks when the lady presented herself at the office for operation.

A lady assistant took charge of the Sim's speculum, elevating the left lateral wall of the vagina. The patient did not wish to take an anæsethetic so none was administered. With two long-handled bistouries, one of them my modification of Sim's hysterotome, I carefully dissected off the bands from the left side of the uterus, and cut them loose from the posterior lip, after a half hour of steady, hard work, as it was almost impossible to get the parts well into view, as I had no place to make counter-extension from. The hemorrhage being freer than I anticipated, and the pain pretty aggravating, I advised postponement of the further operation till another day. I kept up the ground gained by frequent, forcible distension of the parts with my speculum. This operation so much relieved her, that she felt the most natural she had since her sickness some sixteen years ago. Indeed, the old discomfort was entirely relieved, so she could dance and walk with ease, and work at dressfitting, reaching across the table in cutting, with little or no trouble for a day or so at a time; still when this occupation was longer continued, she would feel the old pain come back again. She had a chill following the operation, which I attributed more to exposure, as she went to a lecture on the evening of the day following the operation, and got cold or wet. Some pain in the pelvic region sprang up, but quinine and Dover powder speedily dispelled all bad symptoms.

Some six or eight weeks after the first operation she returned for the final one.

This was similar to the one just described, only the speculum was made to hold up the left wall of the vagina. The dissection was much more painful and bloody than the first one, but it was more expeditious, as I could now readily introduce the sound into the uterus, and so make counter-extension of the parts. I cut through, as I supposed, into the peritoneal cavity at the last of the operation, though no bad after-results followed it; anyhow, I could introduce my index finger easily through the rent, and the free space beyond extended for fully an inch. Possibly, though, I got into the pouch or space *between* the Douglasian *cul-de-sac* and the uterus.

The lady was put on full doses of quinine, and confined to the bed, but never had the least symptom referable to what I considered at the time a peritoneal opening.

I also kept up the dilating process with my speculum for a couple of weeks; and now, some three months after the operation, the lady has a very fair uterine neck projecting about half the normal distance into the vagina, and one easily probed or sounded. Her old symptoms of disease have also vanished; still she is able to stand prolonged reaching over a table at cutting. This is probably due to existing supra-vaginal adhesions as the uterus is absolutely immovable. I found, however, after my first operation, when I was able to sound the uterus, it was not retroflexed, but was held by the adhesions in the position seen in the stage of prolapsus.

Dr. Mulheron attended a case of erysipelas, following the extraction of a tooth. It extended over the face and into the hair. It yielded to tinct. ferri mur. and quinine internally, and solution of sulphite of soda locally. The sulphite is an excellent local application, its good effects being often observable within a few hours.

Dr. Rouse reported a case of erysipelas in a child. It commenced on one leg, at a slight wound, extended over its entire surface, over most of the trunk and other limb. It spread and healed rapidly, so that the surface affected at one time was not very extensive. The hyposulphite of soda solution was used locally. A little vinegar was added to the solution just before it was applied, to liberate the sulphurous acid, which is probably the chief ingredient in this preparation.

Dr. Mulheron.—Tincture iodine is an excellent counter-irritant in phthisis. A lady had a hacking cough; incipient phthisis was feared, though no positive physical signs could be detected; cod-liver oil and hypophosphites were given; tincture of iodine applied to the chest, and the patient was soon relieved.

A lady, aged 52 years, with menses irregular, had severe headache, especially during menstruation. Gave bromhydric acid and applied croton oil to the spine. The oil was used several times and every time, even when very sparingly used, caused pustulation on various parts of the body. It did not act on the bowels.

Dr. Gustin.—When croton oil causes pustulation it usually induces free catharsis.

Dr. Brodie reported the results of a post-mortem examination of a man, who died in consequence of injuries received by falling on the sidewalk as he was ejected from a store. A thin layer of the scalp was torn backwards, and the skull, which was remarkably thin, was fractured on the side extending from the orbit over the ear. The brain tissue was ruptured, and seemed to push the bones outward at the seat of the fracture, but no external wound could be detected in that locality.

W. H. Rouse, M. D., Secretary.